

Operating User Manual

H.264 VIDEO COMPRESS
10.2" All IN ONE CCTV/DVR



Notice:

The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

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Safety Warning and Precautions

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

All the safety and operating instructions should be read before the unit is operated.

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not block the ventilation opening or slots on the cover.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified personnel for service.
- Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do not take immediate action if the appliance become wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Do not use the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperature within indoor type DVR for 0°C ~ +40°C and humidity below 90%. The input power source for this appliance is AC100 ~ 240V.

Note

This equipment has been tested and found to comply with the limits for a Class A digital device. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

Package Contents

Please make sure the following parts are all included with the main DVR when you open the product package. If there are any missing items, contact your distributor.

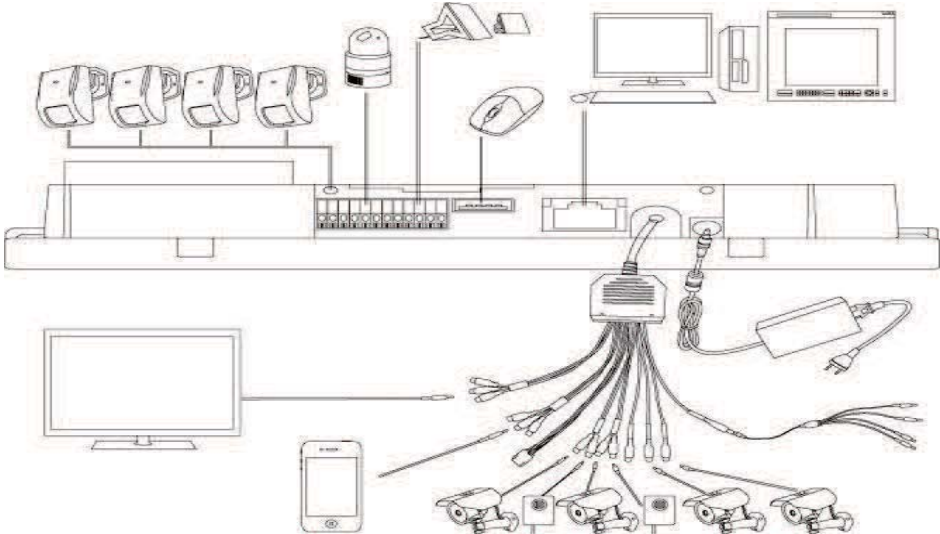
Part Name	Quantity
H.264 Hybrid All In one CCTV/DVR	1
IR Remote Control	1
DC Power Adapter	1
Camera Power Cable	1
User Manual	1
12V Divider Power Jack	2



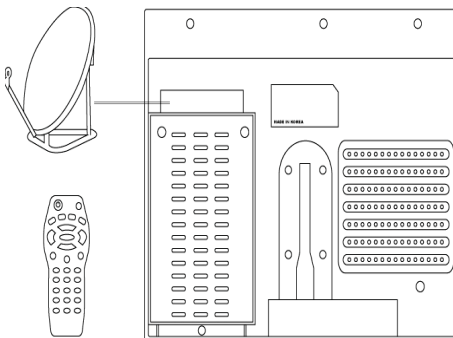
ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

Chapter 1. Understanding Your DVR

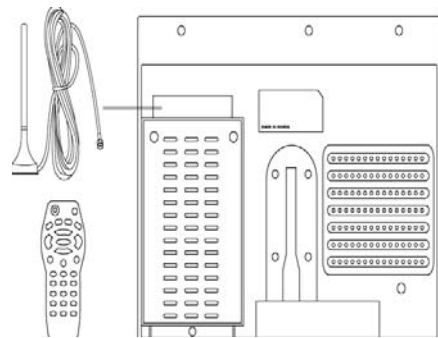
1.1. Basic Security System Configuration



Digital TV System Configuration(Optional Function)



Satellite TV Dish Connection



Terrestrial Digital TV Connection

Note You can use Satellite TV or Terrestrial Digital TV In your All In One CCTV Device(optional).

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

1.2. Utility of Your DVR



- 4CH PICTURE PARTITIONING CAMERA
- MODIFIED H.264 VIDEO COMPRESSION
- RECORDS TO HDD(2.5" SATA)
- REAL TIME LIVE DISPLAY
- 10.2" TFT LCD DISPLAY
- DUAL STREAMING
- PICTURE IN PICTURE FUNCTION
- WEB CLIENT
- CMS NETWORKING ACCESS
- 3G MOBILE NETWORK
(i-PHONE, WINDOWS PHONE, SYMBIAN)
- SENSOR & ALARM
- USB DATA BACK UP
- CAMERA POWER SUPPORTED
- 1 A/V OUT
- 1 A/V AUX IN
- DIGITAL TV(OPTION:DVB-S,ISDB-T,ATSC,DVB-T,DMB)

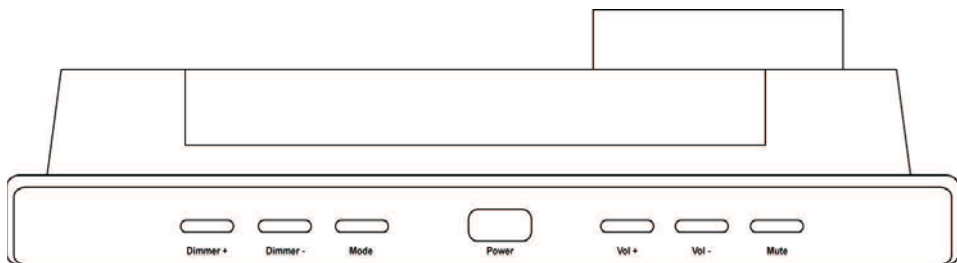


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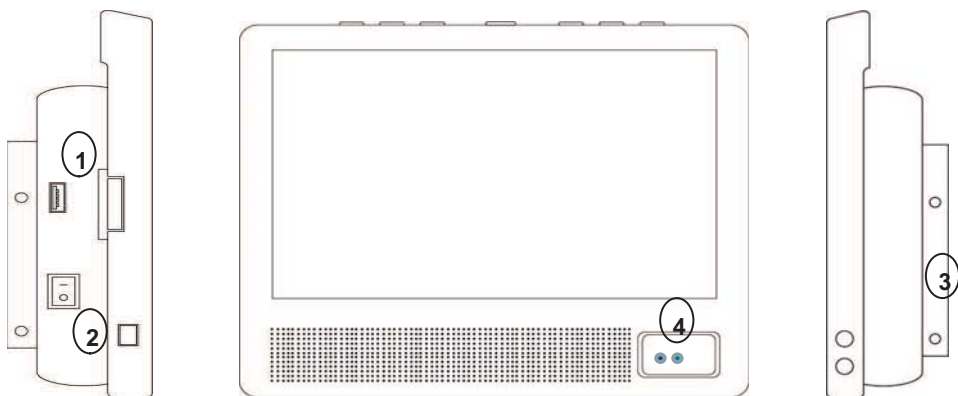
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1.3 Front Key & USB Back up



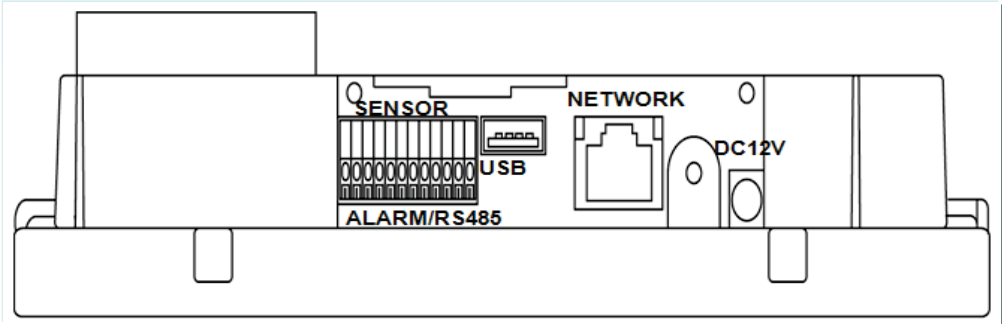
Dimmer + -	LCD Screen Brightness Adjust
Mode	Change the display mode to 1/2/4 split screen
Power	LCD Screen Power ON/OFF Switch)
Volume +-	Volume Adjust
Mute	Sound Mute



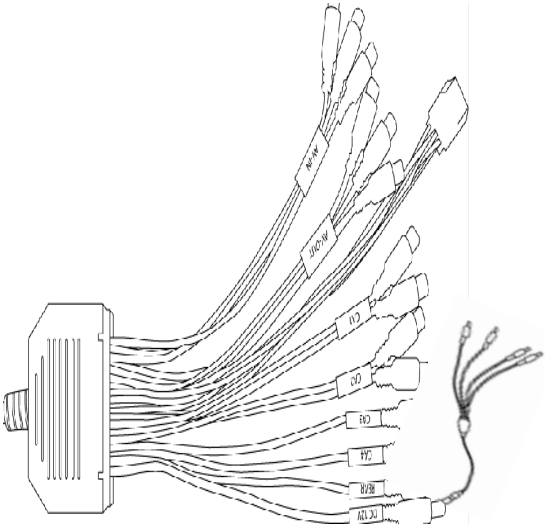
1	USB Data Backup & Soft Program Upgrade
2	12V Input power ON/OFF switch
3	2.5" SATA Hard Disk Memory Mounting Leg Stand
4	IR Sensor for Remoter control & Power Indication

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1.4 Rear Panel View



SENSOR	Sensor Input Connection
ALARM/RS 485	Alarm Output Connection/PTZ Camera Control Connection
USB	Operating Mouse USB Connection Input Jack
NETWORK	Internet Network RJ-45 Connection
DC 12V	DC12V INPUT TERMINAL



DC 12V	Camera Power Connection
CA1	CAM1 Video & Audio Input
CA2	CAM2 Video & Audio Input
CA3	CAM3 Video
CA4	CAM4 Video
AV-OUT	A/V Output For Monitor
AV-IN	External A/V Input
REAR	Rearview Camera(option)

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1.5. IR Remote Control



1. **REC (Record)**: Start/stop manual recording.
2. **Remote Control Setting Indicator**
3. **Number Buttons**: Select camera (channel) number.
4. **ID**: Displays current ID.
5. **ID SEL**: Allows you to select ID setting.
6. **Audio**: ON/ OFF function.
7. **Return**: Directs you back to the previous menu. In Live Mode, this Button will log you out.
8. **Navigate Buttons**: ◀ Left ▲ Up ▶ Right ▼ Down :
9. **Enter** : To select and save the menu and parameter change.
10. **Freeze**: Freezes images. (Only in Live Mode).
11. **Mode**: Change the display mode to 1/4/8/16/32 split screen.
12. **Alarm**: Turns the Alarm off.
13. **Zoom**: Zoom in/out the video when the channel is in full display mode.
14. **Menu**: Enter or exit the menu.

VCR-like functions

15. **Search** : Go to recorded file search menu.
16. **Stop**: Stop playback.
17. **REW**: Rewind (select a speed from 1, 2, 3 and 4 for faster rewind).
18. **FF**: Fast forward (select a speed from FF1, 2, 3 and 4.)
19. **Play**: Play a recorded file.
20. **Pause**: Pause a video during playback mode.

Backup functions

21. **Backup**: Will direct you to the file backup window.
22. **PTZ Control**: Will be able to control the camera with remote control.
23. : Allows you to Zoom Out in PTZ Mode.
24. : Allows you to Zoom In in PTZ Mode.

ID Setting Instruction:

- 1) Press down ID SEL button for 2 seconds to start the ID Setting Mode
- 2) Red LED will be flashing when it is in ID Setting Mode.
- 3) Input any 2 digits to set ID.
- 4) Once the 2 digits are selected, press enter.

* If no action is taken within the 2 second allowed time period, it will automatically exit you from the ID Setting.

Installing batteries

1. Remove the battery cover by sliding in the direction of the arrow.



2. Insert two AAA batteries according to directions provided.



3. Replace the battery cover by sliding in the direction of the arrow.



Chapter 2. Installation

HDD Installation



Before Installation

We recommend setting the current time on your DVR before HDD Installation.
Please make sure that the power of DVR is switched off before starting installation.

- Step 1. Make sure the DVR power is switched **OFF**
- Step 2. Open the stand leg back cover of all in one CCTV using a cross screw driver.
- Step 3. Data & Power Cable Connection to 2.5" Hard disk Connector .
- Step 4. Place HDD(s) on the mounting plate and mount it with screws.
- Step 5. Stand leg back cover fix it with screws.

After HDD installation

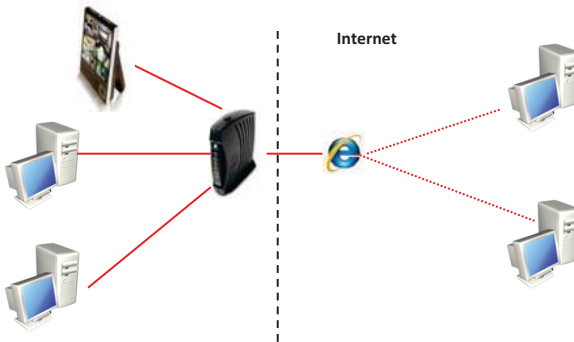
- Step 6. Turn the DVR power **ON**.
- Step 7. DVR will detect HDD(s) during the booting and will format HDD(s).
- Step 8. After HDD formatting, DVR will be automatically rebooted and will be ready to work with HDD(s).



2.2. Network Connection Setup

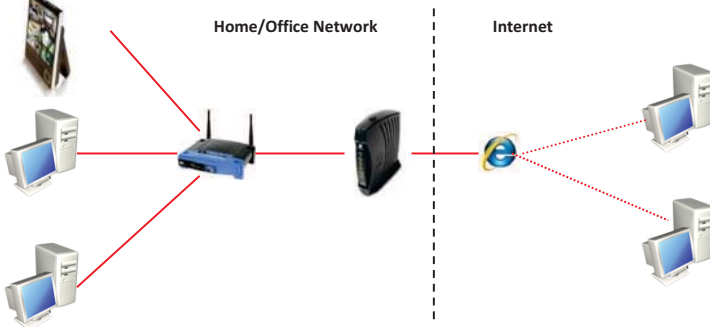
2.2.1 Using a Static IP Address

You can use the Static IP address, Subnet Mask and Gateway address provided by your ISP (Internet Service Provider) for your DVR. The Gateway address is the IP address of your broadband modem.



2.2.2 Using a Dynamic IP Address

You can use a router with your Dynamic IP broadband modem. In this case, you should set the configuration of a router properly for network connection between DVR and Net/Web Viewer. Please follow the instructions in next section to configure your router correctly.



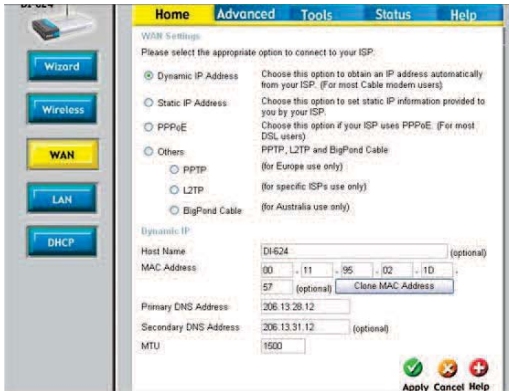
If your Broadband Modem does not support internal loop back (port forwarding) function and you want to monitor DVR using a PC located in same Intranet, you should use Direct IP instead of DDVRLS in the connection menu of NetViewer. If your PC is located outside of Intranet, you can use both DDVRLS and Direct IP to connect to DVR even though your Broadband Modem has limited features. You will know about DDVRLS and Direct IP in **Chapter 7, NVR (NET VIEWER)**.

2.2.3. Router Configuration

If your DVR is connected to the network through a router, you should configure router properly. There are 3 steps as follows.

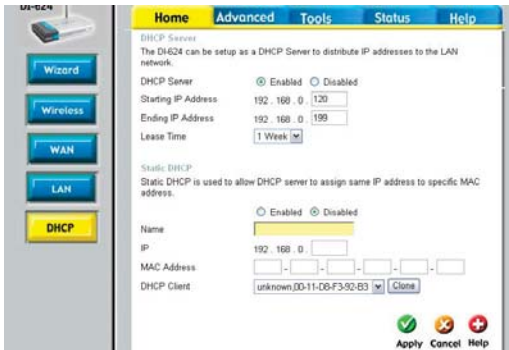
1. WAN Setting
2. DHCP Setting
3. Virtual Server Setting

2.2.3.1. WAN Setting



When you connect to your Router, you can find menu for WAN setting. Please confirm the WAN setting. If you are using DSL service, you should select PPPoE, and you will be directed to a sub-menu to type in DSL user name and password.

2.2.3.2. DHCP & IP Address Setting



To assign a unique private IP address to DVR in your intranet environment automatically, you can enable DHCP option in the Network Setup menu of your DVR and your Router. In this case, you can skip the procedures described on this page.

We recommend assigning IP address to DVR manually to prevent unexpected change of IP address.

*A router from D-Link is quoted as an example in this manual. The images of setup menu above may not always match another router's setup menu.

If you have any problem with DHCP function or want to assign the private IP address, please disable DHCP option in the Network Setup menu of your DVR and check the starting and ending IP used by DHCP server of the Router. **You can assign any private IP address to your DVR even if it is out of the DHCP range, but the IP address should match with the one entered in the Network Setup menu of your DVR.**

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2.2.3.3. Virtual Server Setting

You should register your DVR as a virtual server. Please enter the information into IP address field of the router (e.g. 192.168.0.110).

Protocol Type should be TCP. Private/Public Port numbers should be the same with the Port numbers assigned in DVR. You can change port numbers in Network Setup menu to avoid conflict with other network servers.

Your DVR uses 3 port numbers and the default Port numbers are 9350~1 and 80. 9350~1 are for controlling the video, audio and commands of Net Viewer, and 80 is for Web Viewer. You need to register 3 port numbers into the router as network servers. Please make sure that your router does not block those port numbers to/from the DVR with filter and firewall features.

The screenshot shows the 'Virtual Server' configuration page in a web interface. The left sidebar contains buttons for 'Virtual Server', 'Applications', 'Filters', 'Parental Control', 'Firewall', and 'DMZ'. The main area has tabs for 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Virtual Server' section is active, showing a form for 'DVR Video'. The form includes fields for Name, Private IP (192.168.0.110), Protocol Type (TCP), Private Port (9350), and Public Port (9350). The Schedule is set to 'Always'. At the bottom, there are 'Apply', 'Cancel', and 'Help' buttons.

•
•
•
•

The screenshot shows the 'Virtual Server' configuration page in a web interface, similar to the one above. The left sidebar and main area tabs are the same. The 'Virtual Server' section is active, showing a form for 'DVR Control'. The form includes fields for Name, Private IP (192.168.0.110), Protocol Type (TCP), Private Port (80), and Public Port (80). The Schedule is set to 'Always'. At the bottom, there are 'Apply', 'Cancel', and 'Help' buttons.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

STARTING THE SYSTEM



When power is turned on, you will see the initializing screen and initializing may take up to one minute to complete.



After initializing is completed, a live screen will appear.



To log in, right click any area on the screen and a live menu will appear. Click to any menu and it will prompt you to login dialog.



Enter ID and Password by using the virtual keyboard and click OK.

By default, the ID is set at "Admin" and the Password is set at "1234"

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

LIVE MENU DESCRIPTION

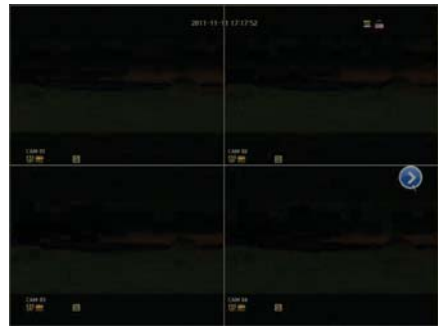


	MENU	DESCRIPTION
1	SCREEN MODE	Can select how you would like to view screen
2	SPOT OUT	Independent of the Live Mode which monitors a specific channel through the Spot Out Port
3	AUDIO ON/OFF	Option to have the audio or off
4	FREEZE	Can freeze Playback or Live scene
5	STOP ALARM	Stops the alarm output and the event monitoring. Refer to "Event Monitoring"
6	RECORD STOP	Starts/stops the standard recording
7	PLAY	Plays the search result (data).
8	SEARCH	Can search for recorded data
9	BACKUP	Can backup data via USB drive
10	MAIN MENU	Access the main menu. Refer to the Using the DVR section
11	HIDE LAUNCHER	Hides the launcher.
12	LOGOUT	You can log out.

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Live Menu

Navigating to a different channels by using the mouse.



By using the mouse, move the mouse to the far right in the middle of the screen and a blue arrow button will appear on the screen (see picture above) to navigate to different channels. If you are viewing the channels in a 4 split mode and by clicking the blue arrow button, it will take you to the next four channels. For an 8 channel DVR, the arrow button will only allow you to navigate to intervals of 4 channels.



For a 16 channel, you can use this mouse navigation when viewing in 4-split screen and 9 split screen only. No other screen viewing will allow you to use this function.

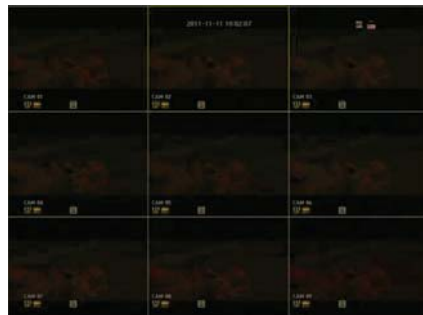
! This function only applies to Saturn 8 channel and 16 channel DVRs. Saturn 4 channel DVR will not have this function available.


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Navigating to different channels by using the remote control.



When no channels are selected, you can use the remote control to navigate to another interval. In this example, it is in a 4-split screen. By pressing the direction button on the remote control ►, it will take you to the next four channels. For an 8 channel DVR, it will navigate you to next four channels and back to the first four channels. This function will also apply to the 16 channel DVRs.



If a channel is selected (has yellow border), you can use the remote control by using the arrow buttons to navigate to individual channels. To select a channel using the remote control, press the enter button  and a yellow border will appear on that channel, (see above picture). After the channel has been selected and by using the arrow buttons on the remote control, you can navigate to desired channels.

! This function only applies to Saturn 8 channel and 16 channel DVRs. Saturn 4 channel DVR will not have this function available.



Chapter 3. Main Menu Setup

- Go to Main Menu Window using:

Remote control – Press **MENU**, Mouse – Right click and click **MENU** icon.









- To go to desired sub menu:

Use direction keys and press **ENTER** (remote control) or click on the mouse

- To go to the higher level menu:

Remote control – Press **MENU**, Mouse – Right click

Main Menu Tree

 VIDEO/AUDIO	 RECORD	 DEVICE
CAMERA	POLICY	STORAGE
MONITOR/SPOT	QUALITY	SENSOR/VIDEO LOSS
SEQUENCE/EVENT DISPLAY	SCHEDULE	ALARM
OSD/DISPLAY POSITION	HOLIDAY&WEEKEND	PTZ
SCREEN MODE	MOTION	SYSTEM CONTROLLER
	EVENT RECORD DURATION	
	RECORD OPTION	
 SYSTEM	 NETWORK	 BACKUP
TIME	CONNECTION	BACKUP
SIGNAL/LANGUAGE	PORT	
CONFIG	DDNS	
LOG	LIVE TRANSFER	
PERMISSION MGMT	MAILING SERVICE	

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

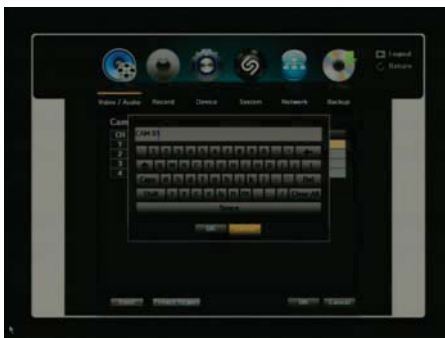
3.1. Video/Audio

There are 5 sub menus under Video/Audio. To exit to main menu, press MENU (or right click on the mouse) key again.

3.1.1. Camera (Channel) Name and Display



- 1) **VIDEO:** You may select the video **ON, OFF, COVERT 1** or **COVERT 2**.
 - **ON:** Pictures/Images and icons will appear on screen as normal.
 - **OFF:** When the video is switched to OFF, there is no action taken (no images/pictures, recordings, etc.).
 - **COVERT 1:** Video/pictures will not appear and will be blank/black, but icons and camera name will appear. Despite being in covert, the DVR will continue to record.
 - **COVERT 2:** In this mode, the screen will be completely blank including icon, camera names, etc. but will continue to record.
- 2) **AUDIO:** You may select the audio ON or OFF position.
- 3) **TITLE:** Create your own title for each camera connected to the DVR by using the virtual keyboard (up to 15 characters). If you skip this setup, camera # will be displayed on the screen



ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



Screen Input: You can configure your screen to your preference by adjusting the channel.

- 1) Brightness
- 2) Contrast
- 3) Color
- 4) Click the <Init> to initialize settings back to the default 50.
- 5) When the desired setting is entered, click <OK>.



Privacy Region: You can set privacy region for each channel up to four privacy region settings.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

3.1.2. Monitor/SPOT



Adjust the **brightness/contrast/hue/color** for a monitor connected to DVR. Press direction keys to change the value and press **MENU** or **▲** to save and exit.

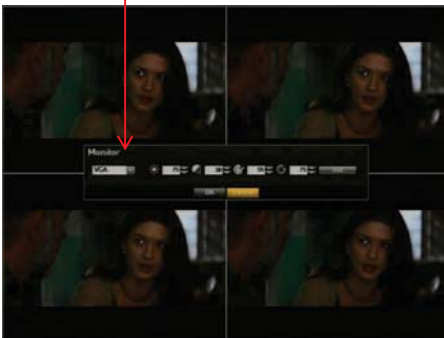
The SPOT OUT monitoring is independent of live mode, which monitors a specific channel through the SPOT OUT port.

SEQUENCE MODE: ON/OFF

SPOT OUT monitoring is in auto sequence mode when it is ON.

ORDER/SPOT OUT CHANNEL: Select the order and cameras for auto sequence mode.

INTERVAL: Set viewing time for each spot screen.



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3.1.3. SEQUENCE/EVENTS DISPLAY



Your DVR can display each live video channel in full screen (or a group of channels) in sequence mode similar to slide show in PC. Select the interval, channel setup and Duration.

SEQUENCE:

- 1) **Interval:** You may select OFF position or 30 sec maximum
- 2) **Single Mode:** By clicking the channel setup, you can select individual channel or all.

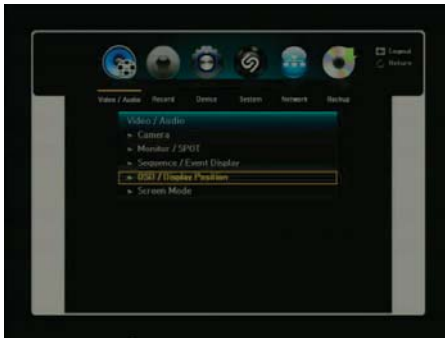
EVENT DISPLAY:

- 1) **Duration:** You may select OFF position or continuous



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3.1.4. OSD/DISPLAY POSITION



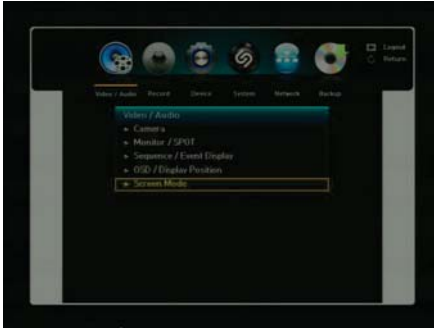
You can configure each parameter for on-screen-display using **direction keys** and **ENTER** button. To save and exit from this menu, press **MENU**.

- 1) **CAMERA ID MODE [NUMBER / NAME / OFF]**
You can display a number or name of your camera on the screen. Select **OFF** not to display any.
- 2) **BORDER COLOR [WHITE / BLACK / OFF]**
Select the color of border line on multiple channel display mode. Choose from WHITE/BLACK/OFF. OFF will not display the colored border line.
- 3) **ICON [ON/OFF]**
Select ON or OFF to display Icon
- 4) **DATE/TIME POSITION [TOP / BOTTOM / OFF]**
Select the position of date/time displayed on the screen. **OFF will not display current date/time on the live screen. But the DVR will record the video with time/date stamp.**
- 5) **DISPLAY POSITION SETUP:** Click the Display Position Setup button to adjust the data position



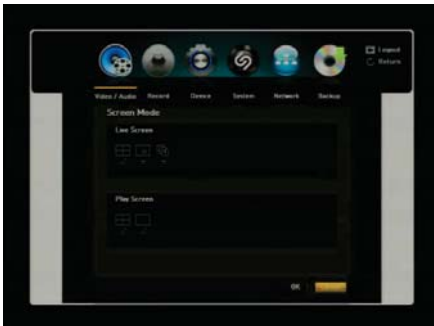
ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

3.1.5. SCREEN MODE



You can configure the Live screen and Split Screens.

- 1) **Live Screen:** Select split modes for the Live screen. 4-split screens are included by default.
- 2) **Play Screen:** Select split modes for the playback screen. Single screen and 4-split screen are provided by default.
- 3) When the screen mode setup is done, click OK.



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3.2. RECORD SETUP

With this menu, you can set all parameters (see the picture as below) related to recording for each cameras independently. Use direction keys and ENTER button to select the camera (channel) and change the setup value.



3.2.1. POLICY

DVR can record a live video by manual, schedule, event (motion detection and/or external sensor) and by network user's command. You can set the recording policy for each camera independently. You can copy this setup to other cameras by pressing "APPLY TO ALL CH" button.



- 1) MANUAL (R) [ON / OFF]**

ON: When turned **ON**, you can start recording manually by pressing a **REC** button (or by clicking **REC** icon on mouse menu). Press **REC** key again to stop recording.

OFF: Manual recording is disabled on selected camera(s).

- 2) SCHEDULE (S) [ON / OFF]

ON: Schedule record enabled. DVR will record as your schedule setup on page 20.

OFF: Schedule record disabled on selected camera and DVR will not record by your schedule setup. This will override schedule setup menu.

- 3) **AUDIO [ON/OFF]:** Allows user to turn audio record ON or OFF.

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3.2.2. RECORD QUALITY

Setup the record quality parameters for each camera. (see picture as below)



1) RESOLUTION [D1, Half D1 and CIF]

There are three recording resolution modes you can choose from. D1 is the highest resolution.

2) RECORD RATE (F/S) [NTSC: 30-1] [PAL 25-1]

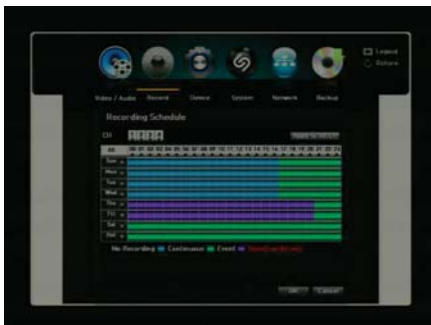
Select recording speed in frame (image) per second. Higher F/S requires more HDD spaces.

3) RECORD QUALITY [Basic / Normal / Good / Very Good / Excellent]

Select recording video quality. You can select level 1 (low) to level 8 (high) for video quality.

3.2.3. RECORDING SCHEDULE SETUP

This menu allows you to create own **recording schedule** and **trigger type**. To enable this feature, schedule recording feature at **RECORD->POLICY->SCHEDULE** menu must be turned "ON". Using direction keys and **ENTER** button, choose preferred record types (such as **ALWAYS**, **MOTION**, **SENSOR** or **MOT+SEN**) on the selected time and date. Different color will represent different recording types.



1) CAMERA

Select channel for schedule recording.

2) SELECT DAY [DAILY / SUN – SAT]

Select the desired day for schedule recording.

3) TIME

Move the cursor to desired time and press **ENTER** key to set it highlighted. Press **ENTER** again to change schedule recording option by color. You can set different recording schedule and type for each camera (channel) or you can apply current schedule setting to all other cameras by pressing **APPLY TO ALL CH** button.

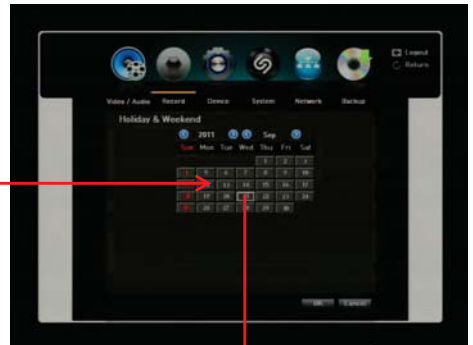
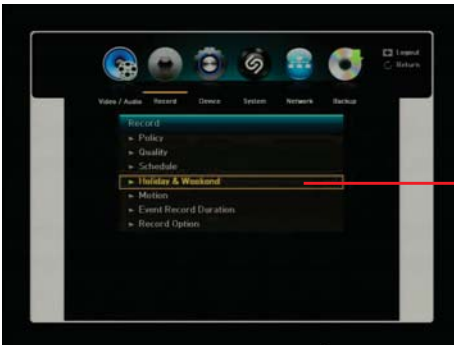
ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



Apply To All Channel: If selected, “Apply to All CH” window will appear. Press OK to apply the setup to all channels.

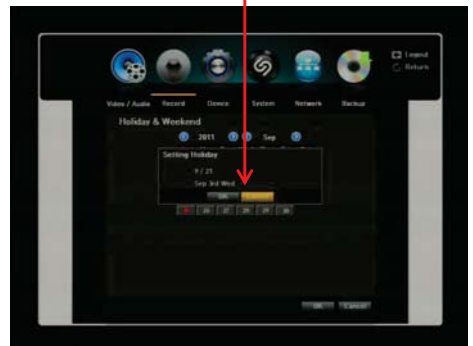
When the recording schedule setup is done, click OK.

3.2.4 HOLIDAY & WEEKEND



You can set specific dates to Holidays & Weekends according to your preferences. Holidays are applied to <Record Schedule> and <Alarm Schedule> as well.

- 1) Select Record in Main Menu and click Holiday & Weekend.
- 2) A calendar for Holiday & Weekend setup will appear.
- 3) By using your mouse or buttons, select year and month and click [OK] or [ENTER].
- 4) Select a desired date and click [ENTER] or [OK]
- 5) You will see the “Setting Holiday” screen.
-Example: Select September 21 and check on <9/21> only to make every September 21st a holiday. Check both on <9/21> and September 3rd Wed> to make every September 21st and 3rd Wednesday of September holidays.
- 6) When the Holiday setup is complete, click <OK>.



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3.2.5. MOTION RECORD SETUP

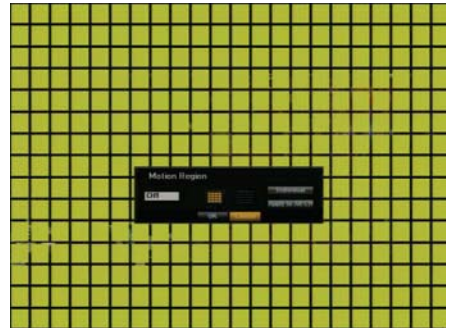
This menu allows you to set motion detection area for motion recording. To start a motion trigger recording, **RECORD-> POLICY->MOTION** must be **enabled**.

- 1) **SENSITIVITY [LEVEL 1 – LEVEL 10]**
The higher level is more sensitive to detect motions.
- 2) **AREA [FULL / SETUP]**
FULL : Motion will be detected from full viewing area.
POSITION : You can setup the detection area manually. To set up the area, go to **POSITION** menu.



Setting the Motion Detection Area:

- 1) Select <Motion Region>
- 2) When “Motion Region” window appears, select a channel for detection and set the area of motion detection.
- 3) To set the area in “Motion Region” window select desired region. To set the area cells individually, click <Individual> button.
- 4) When selected <Individual>, “Motion Region” window will appear and you can select cells one by one or drag the mouse to desired area to select motion region.
- 5) Select: Selected cell is set to be a part of motion detection area.
- 6) **Unselected**: Selected cell is removed from the motion detection area.
- 7) **Inverse**: Unselected cells are set to be the motion detection area.
- 8) **Menu**: After selecting individual motion areas, click menu for the “Motion Region” window to appear.
- 9) When the motion detection setup is complete, click <OK>. By clicking <OK>, you will exit this Motion region setting.



- ✓ Select
- Unselect
- Inverse
- Menu

Important:

When setting the Motion Detection, areas in yellow will only detect motion.

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3.2.6. EVENT RECORD DURATION



You can set the beginning and ending point of a recording on an event.

- 1) Pre Event:** The recording of an event will start at a pre-determined time prior to the actual occurrence of the event. If it is set to 5 seconds, the recording begins from 5 seconds before the event.
- 2) Post Event:** The recording will continue for a pre-determined time after the actual end of an event. If it is set to 5 seconds, the recording ends in 5 seconds after an event. You can set up the Post Event to maximum of 6 hours.
- 3)** When the event recording duration setup is complete, click <OK>.

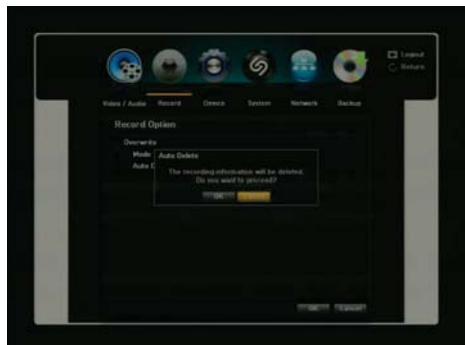
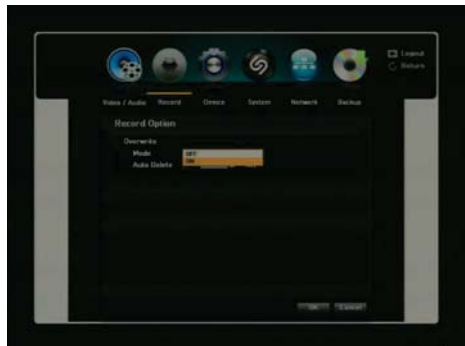
3.2.7. RECORD OPTION (OVERWRITE)

You can enable/disable HDD overwriting feature and set warning method when HDD is full and overwriting is disabled.

- 1) HDD OVERWRITE MODE [ON / OFF]**
If you select **"ON"**, DVR will delete the old recorded files (from the oldest file) and will record the new video file when the HDD is full. If you select **"OFF"**, the DVR will stop recording when the HDD(s) is full.
If HDD OVERWRITE is OFF when the HDD is full, the DVR will warn you to change the setup or replace the HDD. If DISK WARNING is **"ON"**, a Yellow **"F"** sign will be flashing on the screen. If then, enable the HDD overwrite feature or replace your HDD(s) immediately.
- 2) AUTO DELETE [ON/OFF].** You can choose this option if you want to delete data on a HDD after an elapse of certain period of time of recording. Once you set it **"ON"** position, go back to **"POLICY"** menu.

You will see **"AUTO DELETE"** option created on the screen. Click on the box right next to the **"AUTO DELETE"** option.

"AUTO DELETE DAY SETUP" window will be displayed. You can select number of days of recording assigned all channel.



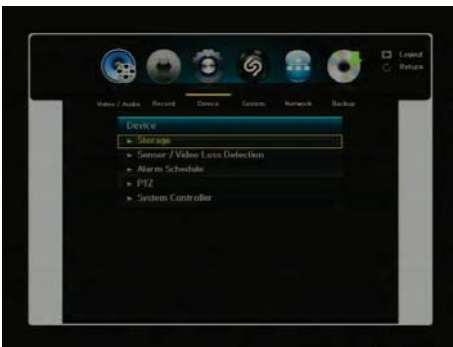
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3.3. DEVICE SETUP



With this menu, you can configure the peripherals in your DVR such as PTZ control and printer.

3.3.1 STORAGE



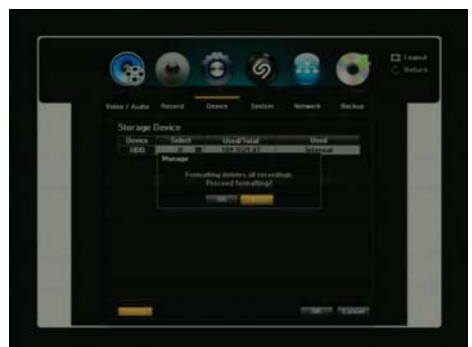
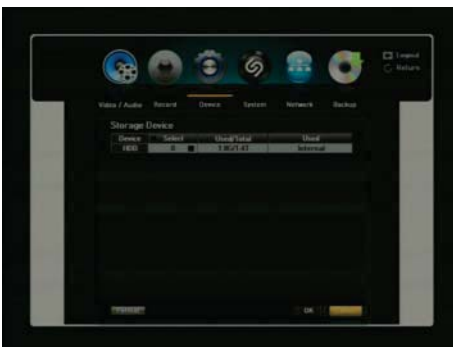
HDD: HDD size and percentage used will be shown.

2nd HDD: 2nd HDD size and percentage used will be shown (if installed).

FORMAT: You can format each HDD if necessary. Select <Format> and a window formatting the HDD will appear. The window will ask you if you want to proceed with formatting. Click OK on the "Manage" confirmation window and it will start rebooting.

If other USB device is used, it will display that particular device and you can format it if so desired.

! ALL DATA WILL BE DELETED PERMANENTLY AFTER FORMATTING!



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3.3.2. SENSOR /VIDEO LOSS DETECTION SETUP



Select the right type of your external sensors connected to DVR. There are 2 different types of sensors. (**N.O.**- Normal Open and **N.C.**- Normal Close). Press **ENTER** button to change and select the sensor type.

1) CHANNEL [CH1 - CH16]

Select the **CHANNEL** which the sensor is connected to.

2) TYPE [N.O. / N.C.]

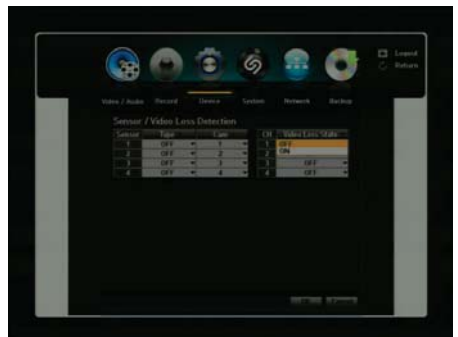
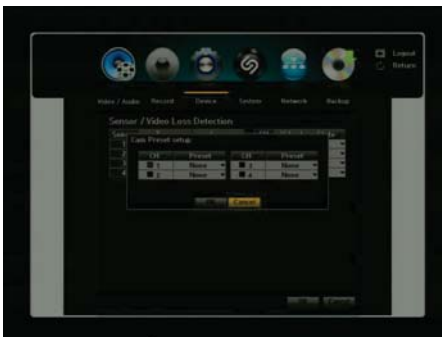
N.O. : "Normal mode-Open". Two sensor lines are not connected (=open) in the normal mode. Sensor lines will be connected (=close) in the activation mode.

N.C. : "Normal mode-Close". Two sensor lines are connected (=close) in the normal mode.

Sensor lines will be disconnected (=open) in the activation mode. Press **MENU** to save and exit.

3) Cam: Select a channel to be connected to the sensor. Once the camera is selected, "Cam Preset Setup" window will appear. Select a channel and setup the preset.

4) Video Loss State: Select ON or OFF for each channel



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3.3.3. ALARM SCHEDULE SETUP

You can set the conditions and operating hours for scheduled alarms.

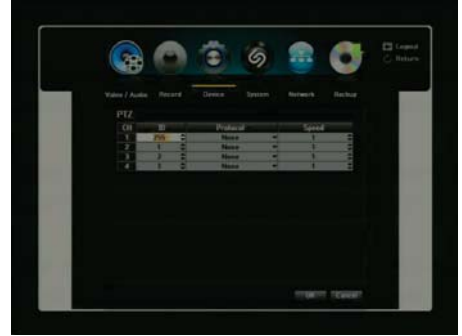


- 1) **ON:** Marked in Blue, it will always generated alarm On scheduled time.
- 2) **OFF:** Marked in Black, no alarm is generated even if an event occurs.
- 3) **Event Sync:** Marked in Green, it generates alarm Only when an event occurs.
- 4) When the alarm is generated on the scheduled time, you can stop the alarm by cancelling the schedule.
- 5) When the Alarm Schedule setup is complete, click <OK>.

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3.3.4. PTZ CONTROL SETUP

DVR supports Pan, Tilt, Zoom and Focus control for PTZF cameras or servers. It has RS485 port to connect to PTZ cameras and supports most industrial common protocols.



- 1) **ID** : You can create own ID number (0-255) for each PTZ camera (up to 16 cameras. Ex. is for 4 ch).
- 2) **PROTOCOL** : Select the correct protocol for each PTZ camera connected to DVR.
- 3) **SPEED** : Select the speed of camera movement (1-5). The higher number indicates faster speed.
- 4) When the PTZ setup is complete, click <OK>

3.3.5. SYSTEM CONTROLLER



You can set the RS-485 communicator for use of PTZ Camera with the DVR.

- 1) Set the values of each communication setup of the remote device.
- 2) **Baud rate**: Baud rate settings of the DVR and PTZ camera should be matched for proper operations.
- 3) **Remote Control**: You can select to have it ON or OFF and enter ID
- 4) **Printer**: You can select whether the printer is USB or Network.
- 5) When the setup is complete, click <OK>

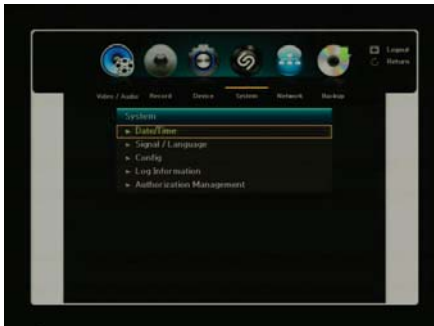
3.4. SYSTEM SETUP

This menu helps you to configure DVR for basic operation. You can set the current time for your area and password for security purposes.

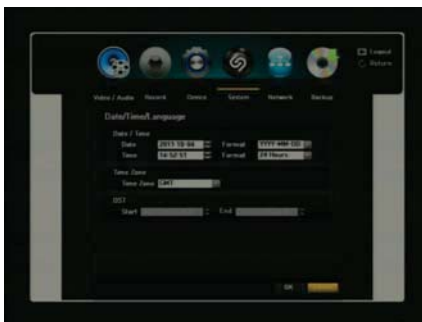


3.4.1. DATE/TIME SETUP

You can setup the current date and time manually.



- 1) **Date:** Sets the date that will appear on the screen. You can Select the date format
- 2) **Time:** Sets the time and its format that will appear on the Screen. Select either one from <24 Hours or 12 Hours (AM/PM)>
- 3) **Time Zone:** Sets the time zone of your area based on the Greenwich Mean Time (GMT)
- GMT is a standard World Time and the basis of world time zone.
- 4) **DST:** Set up Daylight Saving Time with its period to make the time earlier than the GMT of its time zone by 1hour during the set period.



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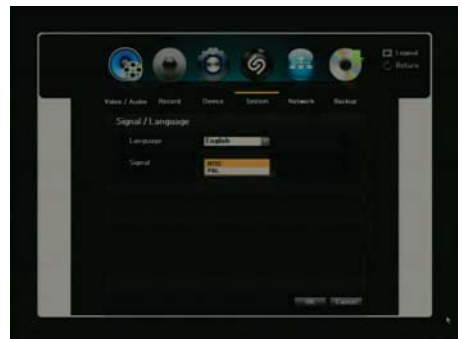
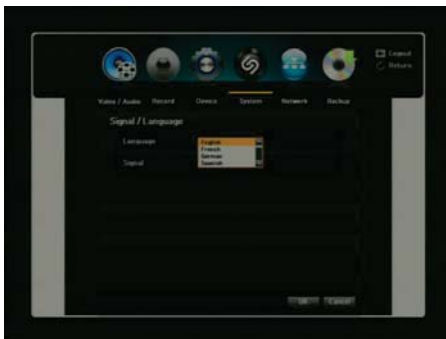
3.4.2. VIDEO SIGNAL TYPE [NTSC / PAL] /LANGUAGE



DVR supports several languages. Select your preferred language using **ENTER** button and press **MENU** to save and exit.

Select your video signal format type: **NTSC** or **PAL**. Use **ENTER** key to select the type and press **OK** button.

Changing the video signal setup of the DVR will cause it to reboot



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3.4.3. CONFIG

With this menu, you can **EXPORT, IMPORT, RESET** your DVR configuration. You can also **upgrade** your firmware from this menu.



- 1) **Upgrade** : Upgrade DVR firmware with USB memory stick at local USB port

How to upgrade firmware with USB memory stick :

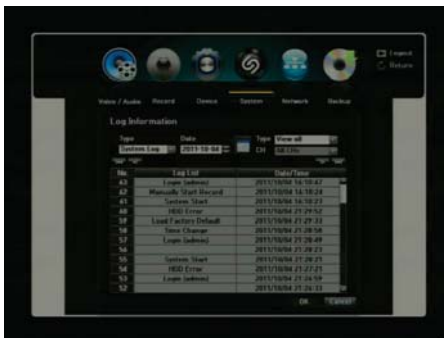
- Check your current firmware version before starting upgrade.
- Have a newer version of firmware software in a USB memory stick.
- Insert a USB memory stick to the USB port on the DVR.
- Press **Menu** button
- Go to **CONFIG**.
- Available firmware file will be shown on the screen. Select the right firmware file.
- Click **UPGRADE**
- **DVR will reboot automatically after update.** Please wait until DVR is rebooted automatically.

- 2) **Import Configuration** : Import and copy the DVR configuration file from a USB memory stick.
- 3) **Export Configuration** : Export current DVR configuration to USB memory stick. You can import this file from other DVR(s) and clone the configuration from other DVR(s).
- 4) **Reset** : You can restore all configuration to factory default values. (Except current time and network setup configuration)

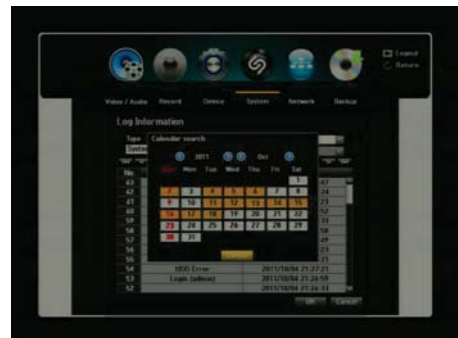


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3.4.4. LOG



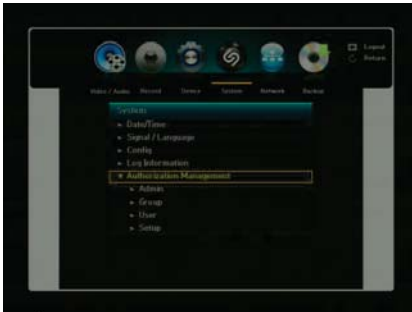
You can browse logs on the system and events. System Log shows log and time stamp on every system start, system shutdown and any changes on system settings.



You can retrieve log information by calendar by clicking the calendar icon.

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3.4.5. AUTHORIZATION MANAGEMENT

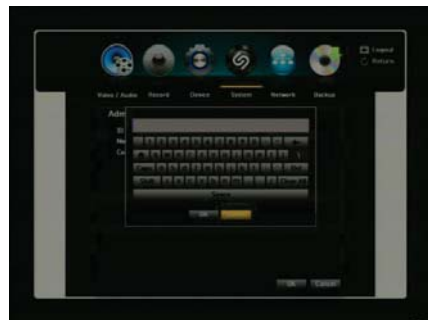
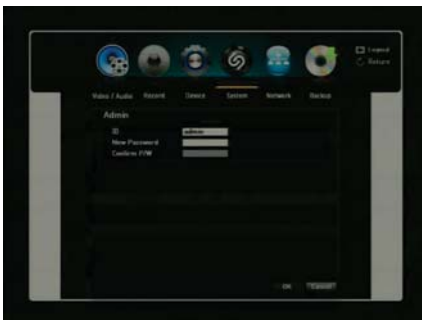


You can set permissions of each user over the DVR's specific function and settings.

3.4.5.1. ADMIN.



- 1) Under Permission Management Admin, you can change Admin's ID and Password. By clicking on the ID, a virtual keyboard will appear to type in ID. This also applies to Password and Confirm PW. Once you have entered your ID and PW, click OK.
- 2) By default, the ID and Password are set to "admin" and "1234"



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3.4.5.2 GROUP



- 1) Select Group and window for **Add, Delete, Rename** and **Group Authority** setup appears.
- 2) Click to a desired item and set the value.

- **Add, Delete, Rename:** You can add, delete, rename a group or modify permissions given to the group. A virtual keyboard will appear when **Add** or **Rename** is selected. You can add up to 10 groups.

- **Add:** When you first run the DVR with the admin account, only the admin accounts exists. Add has already been deactivated. Select to display the virtual keyboard. Enter a group name. You can add up to 10 groups.

- **Delete:** Deletes a user group that is already registered. Selecting Delete will delete all user accounts belonging to that group.

- **Rename:** Renames a group that is already registered. Select Rename to display the virtual keyboard.

- **Group Authority:** Sets permissions to access menu items of each group. Users of a group can access checked functions.

- 3) When the group setup is complete, press OK.



You can create user groups and setup permissions for those user groups. You can also register a user group <User>

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You can set the permissions of the group users to access the menu according to the channel.

Select a menu to which the group permission is assigned.

The menu where the group permission is assigned will be displayed in the Live menu when a group user logs in.

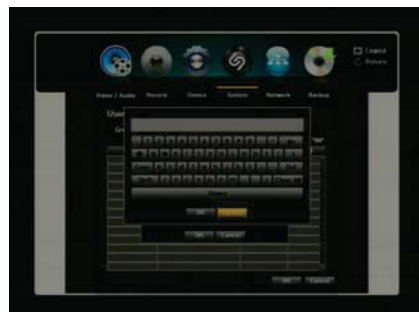
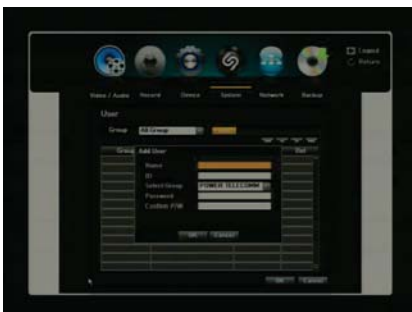
- 1) Live View
- 2) Search
- 3) Backup
- 4) Menu

Select <OK> . Select and assign a group user so that the user can access the specified menu.

3.4.5.3. USER



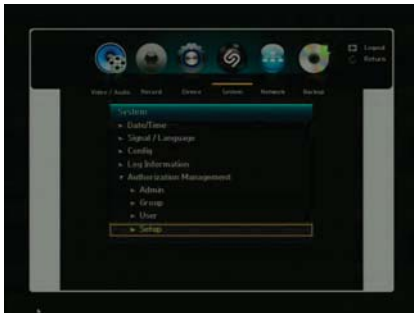
! Users can be added only if a Group has been already established.



- 1) When selecting Add from the window, a window for "Add User" will appear. You can configure the Network setting including Name, ID, Select Group and Password. Result of the user setup appears in the User window.
To change the user property, use "Edit User".
The "Edit User" window appears when you select a desired item to be changed in the User window.
- 2) When the user setup is complete, click <OK>.

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3.4.5.4. SETUP



You can set restricted access for all general users. Items with restrictions will require logging in for use.

- 1) The Restricted Access, Restriction on the Network Access, Auto Log out, Manual Input of ID and Auto Log Out setup screen will appear.
- 2) Click to a desired item and set the value.
 - A) Restricted Access: All menu items allowed for a user can be set with the value.
 - Checked Box = Restricted/Not Accessible
 - Unchecked Box = Accessible
 - * If box is checked in Restricted Access, a user can access the item only if the user has permission in Group Authority setting.
 - B) DDVRLS:
 - C) Auto Log Out: A user will be automatically logged out if there is no operation on DVR for over set period of time.

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3.5 NETWORK SETUP

With this menu, you can setup the network for DVR. Before starting this setup, the DVR must be connected to the router by LAN cable. Also, please make sure that internet is working properly.

Important: If you are not familiar with network configuration and find any difficulties during this setup, please consult with your IT specialist or contact your distributor.

You should complete your network setup to control and manage the DVR through the internet and/or local network just like you are next to the DVR.



When No Router Is Used:

- 1) **Static IP Mode:**
 - **Internet Connection:** Static IP ADSL, Leased Lines and LAN environments allow connection between the DVR and the remote user.
 - **DVR Network Setting:** Set the <Connection Mode> to <Static IP>.
- 2) **Dynamic IP (DHCP) Mode:**
 - **Internet Connection:** Connect the DVR directly to a cable modem, DHCP ADSL Modem or FTTH network.
 - **DVR Network Settings:** Set the <Connection Mode> to <Dynamic IP>

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When A Router Is Used:

1) Setting the DVR with a Static IP:

- Internet Connection: You can connect the DVR to a router which is connected to a cable modem or a router in a LAN environment.

2) Setting the DVR Network:

- Set the <Connection Mode> to <Static IP>.

- Check whether the set IP address is in the Static IP range provided by the IP router.

3) Make sure the Gateway address and Subnet Mask are equal to those set in the IP router.

4) Setting the DHCP IP Address of the IP router:

- To access the IP router's configurations, open a web browser on the local PC that is connected to the IP router and enter the router's address (ex. <http://192.68.1.1>).

- At this stage, make the local PC's windows network configurations to the below example:

EX.) IP:192.168.1.2

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

- Once connected to the IP router, it prompts with password. While entering nothing to the User Name field, enter, "admin" into the password field and press <OK> to access the router configuration

- Access the router's DHCP configuration menu and it's DHCP server activation and provide the start and end address. Set the start address (192.168.0.100) and end address (192.168.0.200).



Setting Router's Port Forwarding

To remotely access/view your camera, it is required to perform port forwarding. It is essential to access the DVR connected to the router from outside of the router's network.

- 1) External Port Range:** Enter the TCP Port set in the <Port (TCP)> in <Protocol> menu of the connected DVR. If more than one DVRs are connected to the router, the TCP port can be different.
- 2) Internal PC IP Address:** Enter the IP address set to the <IP> in <Connection> menu of the connected DVR.
- 3) Internal Port Range:** Set same range as External Port Range.

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3.5.1 CONNECTION MODE

You can set the network connection route and protocol.

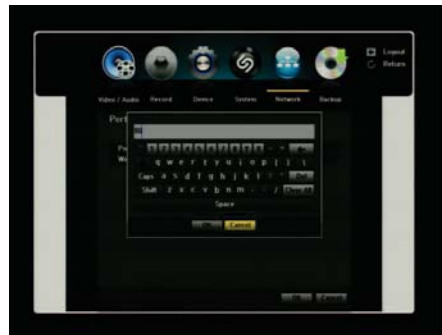


- 1) **Connection Mode:** Sets the network connection mode.
- 2) **Bandwidth:** Sets the maximum data flow to be transferred (Upload speed)
Options will vary depending on the selected connection mode.
For Static IP, Dynamic IP: Select one from 50 kbps-2Mbps and unlimited.
- 3) **IP, Gateway, Subnet Mask and DNS**
For Static IP: You can directly input IP address, Gateway, Subnet Mask and DNS.
For Dynamic IP: IP Address, Gateway and Subnet Mask are set automatically.
- 5) When the connection setup is complete, click <OK>.

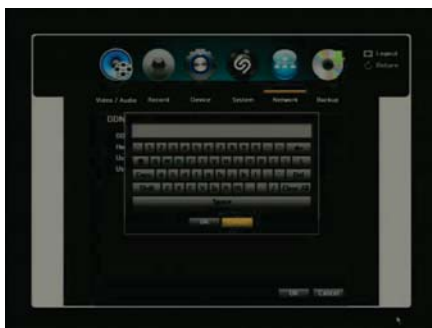
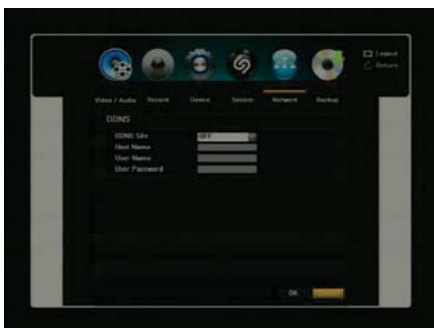
3.5.2. PORT



- 1) **Port (TCP):** Initially, 9350-9351 is set. It increases/decreased by TCP: It has better stability and lower speed when compared to UDP and recommended for internet environments.
- 2) **WebViewer Port:** Enter the port number for the Web Viewer. Initially, it is set to 80.
- 3) When the protocol setup is complete, click OK.



3.5.3 DDNS



You can set the DDNS site for a remote user's network connection

- 1) A virtual keyboard will appear for user input.
- 2) Once the DDNS setup is complete, click OK.

DDNS Setting:

DDNS is a short form of Dynamic Domain Naming Systems. DNS (Domain Name System) is a service that routes a Domain name consisting of user friendly characters to an IP consisting of numbers (64.233.189.104).

DDNS (Dynamic DNS) is a service that registers a domain name and the floating IP address with the DDNS server so that the domain name can be routed to the IP address even if the IP is changed in a dynamic IP system.

Setting DDNS in the DVR

Set <Protocol Type> in the <Protocol> menu of the connected DVR to the following:

Ex) Protocol Type: TCP

Port (TCP): 9350-9351

DDNS Site: Power Telecomm DDNS

DDNS Settings of the Router

Select the corresponding menu for the network transfer protocol of the router.

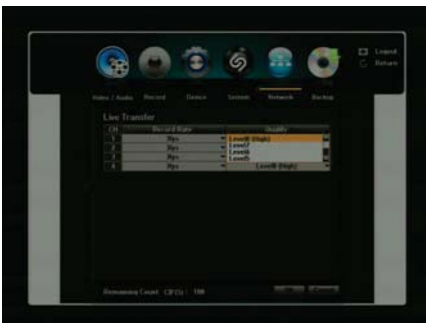
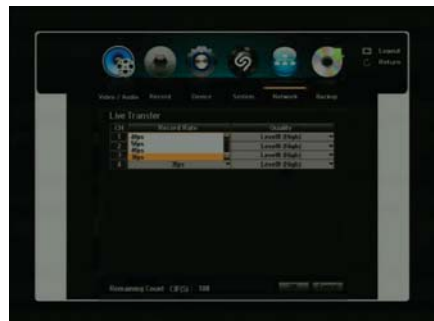
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3.5.4 LIVE TRANSFER



You can set the quality of the image that is transferred from the DVR to the network.

- 1) Record Rate: Choose from OFF to 30fps (Highest)
- 2) Record Quality: Level 1 (Lowest) to Level 8 (Highest)



3.5.5 MAILING SERVICE



3.5.5.1 MAILING SERVICE: SMTP



You can send e-mail to a registered DVR user at a specific time interval or if an events occurs.

Sets the SMTP mail server.

- 1) **Server Type:** Displays the connected server type.
- 2) **Server:** Enter your email server to connect to.
- 3) **Port:** Sets the communication port.
- 4) **User Authentication:** Click the check box next to User Authentication if the SMTP server requires user authentication. The account input box will be activated.
- 5) **User:** Enter a user to use authentication when connecting to the SMTP server.
- 6) **Password:** Enter the password of the SMTP server user.
- 7) **Sender:** Use the virtual keyboard to enter the sender's email address.
- 8) **TEST:** Conducts the test on the server settings.
- 9) When the SMTP setting is complete, click OK.



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3.5.5.2 MAILING SERVICE: EVENT



You can set the interval and type of event that will be sent to the user.

- 1) **Event Interval:** Set the event interval time (10 min – 30 min)
- If a series of events occurs, an email will be sent at that specified interval time and not on each event to notify you that an event had taken place.
- 2) **Use Event Transfer:** Select an event type to send if an even occurs. If the selected event occurs, an e-mail will be sent to the group that has the recipient authority.
- 3) When the event setting is complete, click OK.

3.5.5.3 MAILING SERVICE: RECIPIENT

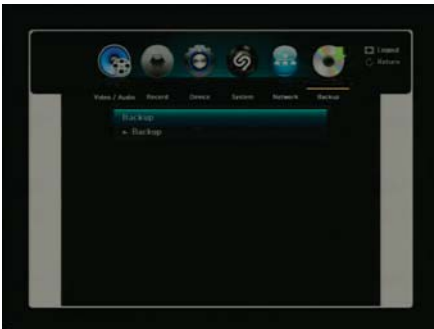


You can add a user to the mailing service. Click the User Add button and Add recipient window will appear in the middle of the screen. To input recipient's name and email address, click the space next to the name and virtual keyboard will appear. Once you have entered the name and email information, click OK.

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3.6 BACK UP



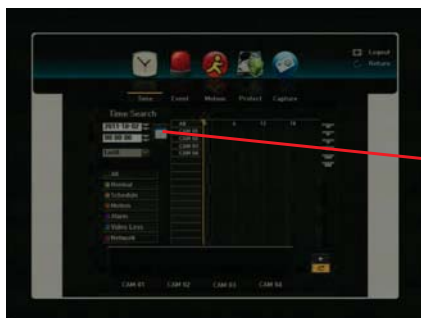
You can check the backup device and set the backup schedule by channel or by time. You can only backup your data with either a UBS Drive or external CD/DVD Writer.

- 1) **Backup Range:** Sets the Start and End time for the backup.
- 2) **Channel:** Sets the channel to back up. You can select more than one channel to backup.
- 3) **Device:** Select a backup device from the recognized device. Only USB Drive or external CD/DVD can be used for back since there is no internal CD/DVD Writer.
- 4) **Type:** Sets the backup data format.
 - **AVI:** Saves the CODEC information provided by the DVR with the recording data and saved data can be played back by using external viewers such as Windows Media Player on a PC.
 - **H4V:** You can backup your file with this format.
- 5) **Filename:** You can set the back up file name.
- 6) **Check Capacity:** Shows that size of the selected back up data used and available capacity of the selected back up device.
- 7) **Overlap:** Shows a list of overlapping data on a same time according to the number data. This will appear when one channel has multiple data on a certain time point due to changing of time or time zone.
- 8) When the backup is done, click OK
 - If no available device is recognized for backup, OK button is not activated.

CHAPTER 4 : SEARCH MENU



4.1 TIME SEARCH



To search by calendar, click the calendar icon. A calendar will appear in the middle of the screen.

You can search for recorded data of a desired time.

- 1) Select a date to search
- 2) Recorded data on that date and time will be listed.
The display bar is different according to the data type so check the data type for the color in the left pane.
- 3) Use direction buttons to set the search criteria and press [ENTER] button.
- 4) **Go to First:** Moves to the earliest date.
- 5) **Go to Last:** Moves to the most recent date.
- 6) **Time:** Enter a time to perform the search or use the up/down to select one.
- 7) **Zoom In (+):** The map enlarges in detail
- It will switch in the sequence of 24 hours-18 hours-8 hour-4 hour
- 8) **Zoom Out (-):** The map will switch in the reverse order of the detailed mode above.
- 9) Double click a desired time to zoom in/out.
- 10) **Preview:** Click <Channel> and select (click, drag)) a time in <Duration> to display a still image for the portion.
- If the selected channel does not contain any recorded data, it will be marked black.
- 11) Select a data item and click <Play>.
- The screen switches to the data playback mode.

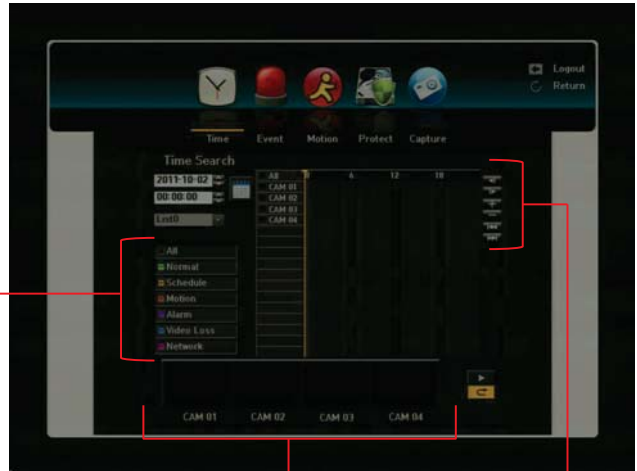


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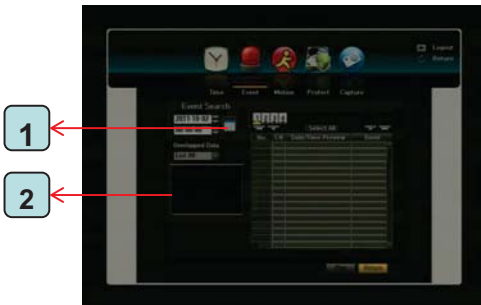
- 1** There are 6 options to choose from to retrieve recorded data.
You can choose to search one at a time, multiple at a time or by all. You can click All tab to view all options.
- 1) Normal Rec
 - 2) Schedule Rec
 - 3) Motion Rec
 - 4) Alarm Rec
 - 5) Video Loss
 - 6) Network

- 2** These buttons allow you to search according to your preference by time.

- 3** Preview Display



4.2 EVENT SEARCH



You can search for events by the channel and play them.

- 1) Use the mouse or direction buttons to set the search criteria and press the [ENTER] button.
- 2) All record events on a specific date will be recorded and can be retrieved. (Normal/Schedule recording included)
- 3) **Date/Time Preview:** If you select a data item in the list, the still image of the selected data will be displayed in the left preview pane.
- 4) **Event:** Displays the type of the event that occurred
- 5) Select a data item and click Play. The screen switches to the event data playback mode.

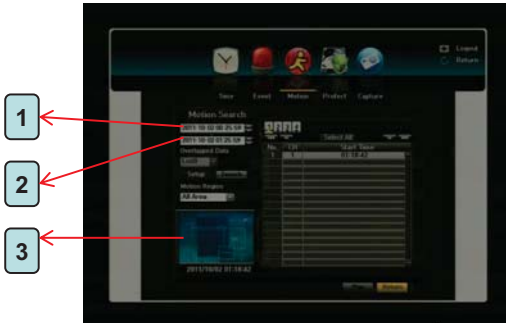
You can choose event search by calendar by clicking the Calendar icon. Calendar display will appear.

- 1** Calendar Icon

- 2** Preview Display

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

4.3 MOTION

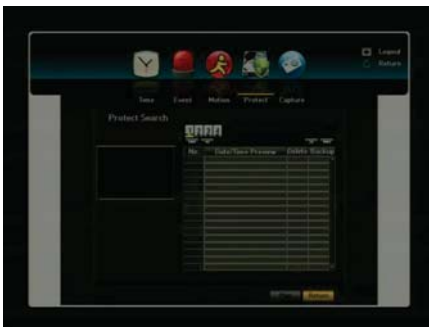


- 1 Start Date & Time
- 2 End Date & Time
- 3 Preview Display

If a motion is detected in each channel, you can set a desired area to perform the search.

- 1) If you set the motion area to Motion Area, the Setup button will be activated.
- 2) **Motion Region:** Select an area to perform search.
 - **All Area:** Searches for all areas of the selected channel.
 - **Current Area:** Searches for the motion area for each channel specified in "Motion Detection Setting the Motion Detection Area"
 - **Manual Area:** You can set the motion area manually.
- 3) **Setup:** The Setup button will be activated only if you have set the motion area to Manual. Press the button to display the area setting window.
- 4) **Date/Time:** The Date/Time will be automatically set by the hour and the end time will be automatically set to one hour later than the start time if it is set.
- 5) **Preview:** Select a data item in the list to display the still image of the item.
- 6) Select a data item and click Play. The screen switches to the motion data playback mode.

4.4 PROTECT



How to retrieve Protected files

Any recorded files (video/audio) you set as protected will be stored under this list and will no longer be available by regular CALENDAR/TIME search. You can search, playback, backup, remove from this menu.

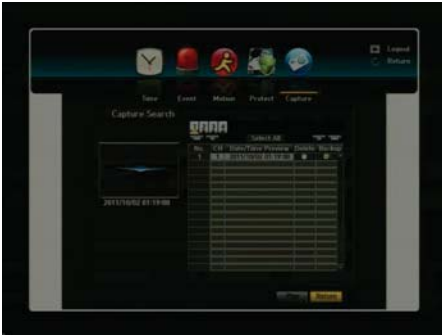
Click **SEARCH -> PROTECT**.

You will see the file list with recording start Time.

Select a file and click **PLAY** button. **Channel (camera) name** will be displayed in **WHITE** to notify you that this is a protected video file (non-protected file will show channel (camera) name in white during the Playback).

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4.5 CAPTURE



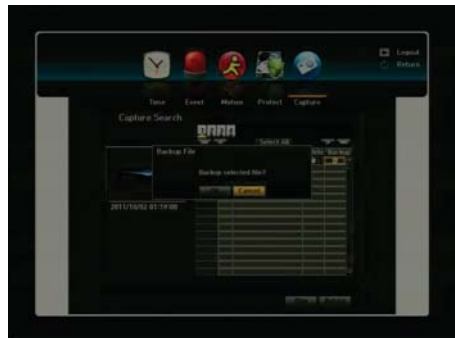
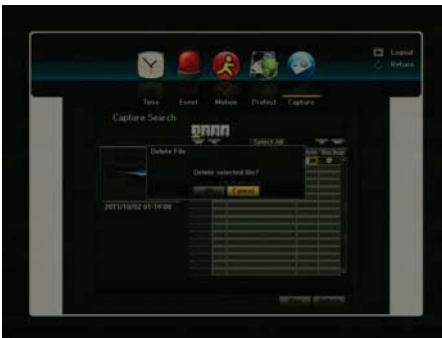
How to retrieve captured image files

Click **SEARCH -> CAPTURE**.

You will see the list of captured image files (100 max). It will show you captured date, time and a source channel (camera) number.

To see the captured image, click on the Date/Time Preview section. The image will appear on display pane of the desired Image. To view the image in a normal/enlarged viewing, click Play at the bottom of screen.

You can choose to delete the captured image by clicking the <Delete> button or if you would like to backup the captured image, click the <Backup> button.



CHAPTER 5 : GENERAL OPERATION

5.1 MOUSE MENU



To navigate by using your mouse, right click your mouse anywhere on the screen and you will given options to choose from.

- 1) Screen Mode
- 2) Spot Out
- 3) Audio Off
- 4) Freeze
- 5) Stop Alarm
- 6) Record Stop
- 7) Play
- 8) Search
- 9) Backup
- 10) Main Menu
- 11) Hide/Show Launcher
- 12) Logout



When a channel is selected, the Mouse Menu options/selections are different than the Mouse Menu when a channel is not selected.

- 1) Full Screen
- 2) Spot Out
- 3) PTZ Control
- 4) Zoom In
- 5) Audio
- 6) Freeze
- 7) Record Stop
- 8) Play
- 9) Shut Down
- 10) Hide/Show Launcher
- 11) Logout

**ALL IN ONE VIDEO SURVEILLANCE
CCTV/DVR**

5.1 .1 .Mouse Menu: Scene Mode

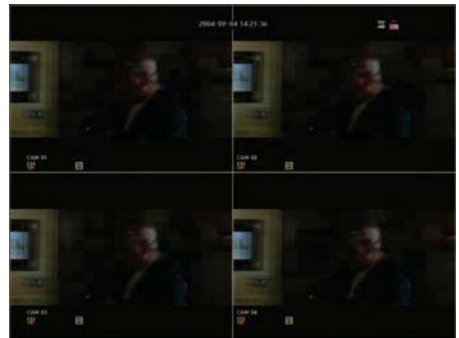


When selecting Scene Mode, you will be given three (3) options 4-Split, PIP and Auto Sequence on a 4 CH. DVR. 8 & 16 CH DVRs will vary in scene mode options.

AUTO SEQUENCE



If you activate **Auto Display Mode (Sequence Display Mode)**, live channels (cameras) will be displayed on the monitor screen in accordance with your sequence setup. When Auto Sequence is activated, an auto mode icon will be shown on the upper right corner of the screen until you stop this mode. To activate this mode, press



4-SPLIT

PIP



To activate **PIP Display Mode**, press **PIP** button. Main channel is displayed on the full monitor screen at the same time as one, two or three other channels are displayed in inset windows. You can change 1 / 2 / 3 PIP mode with 4 different display positions by pressing **direction keys (up and down)** button repeatedly. To exit from this mode, press **PIP**. **To change PIP mode and display position with a mouse, right-click and press **MULTI** icon and select your favorite PIP display.** Only analog camera input channels are available for main channel in PIP model.

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5.1.2. MOUSE MENU: SPOT OUT



The Spot Out monitoring is independent of the Live Mode, which monitors a specific through the Spot Out port

Selecting a Spot Out Mode:

If an event occurs such as sensor, motion or alarm from the Spot Out port in connection with a monitor, you can select a output screen mode.

- 1) In Live Mode, right click any area on the screen. The Mouse Menu (Live Menu) will appear.
- 2) Click Spot Out. Supports the Spot output in single screen with Auto Sequence Mode.
 - The Spot output is supported only for a designated channel. Needs to be synchronized with Spot Out setup.

5.1.3. MOUSE MENU: AUDIO ON/OFF



You can turn the sound on/off corresponding to the channel in Live Mode.

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5.1.4. MOUSE MENU: ZOOM



Select Zoom In and click to enlarge. You can use the direction keys or the mouse to enlarge desired area. Click enter or double click once the desired area is confirmed.

! Zoom is only available in Single Live Mode.



In Single Live Mode, select a desired area and use the Zoom function to enlarge. It will enlarge the area X 2!



5.1.5. MOUSE MENU: FREEZE



This is only available in Live Mode and will temporarily pause Live feeds.

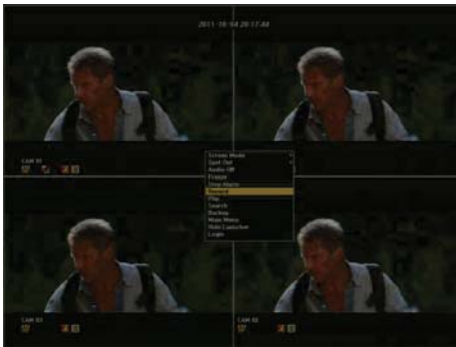
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5.1.6. MOUSE MENU: STOP ALARM



Stops the alarm output and the event monitoring.

5.1.7. MOUSE MENU: RECORD STOP



Will stop all recordings.

5.1.8. MOUSE MENU: PLAY



You can play data stored in the HDD.

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5.1.9. MOUSE MENU: SEARCH



You can perform search for recorded data by the time or by the search criteria such as an event. Once you click Search from the Mouse Menu, it will direct you to the Search Menu.

5.1.10. MOUSE MENU: BACKUP



You can backup the desired data to a connected device. By clicking the Backup tab from the Mouse Menu, it will direct you to the Main Menu Backup.

5.1.11. MOUSE MENU: MAIN MENU



By clicking the Main Menu on the Mouse Menu, it will direct you to the Main Menu .

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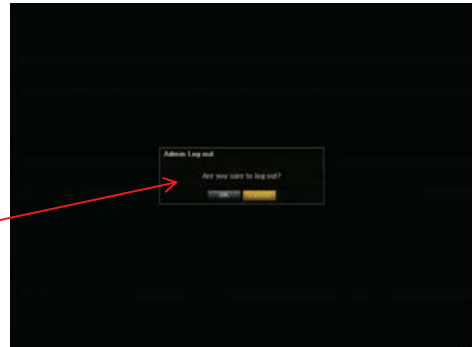
5.1.12. MOUSE MENU: HIDE/SHOW LAUNCHER



Shows or hides the Launcher.

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5.1.13. MOUSE MENU: LOGOUT



Allows you to logout by clicking the Logout button. A logout window will appear to confirm your request to logout.

5.2. LIVE LAUNCHER



The Live Launcher menu appears at the bottom of the live screen. Some of the menu buttons will appear in the Live Launcher, Mouse Menu and Playback Launcher for the convenience of not having to go back and forth to navigate to desired action.

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5.2.1. Screen Display Option



Switching the Screen Mode

1 → Auto Sequence Mode

2 → PIP Mode

3 → Full Screen Mode

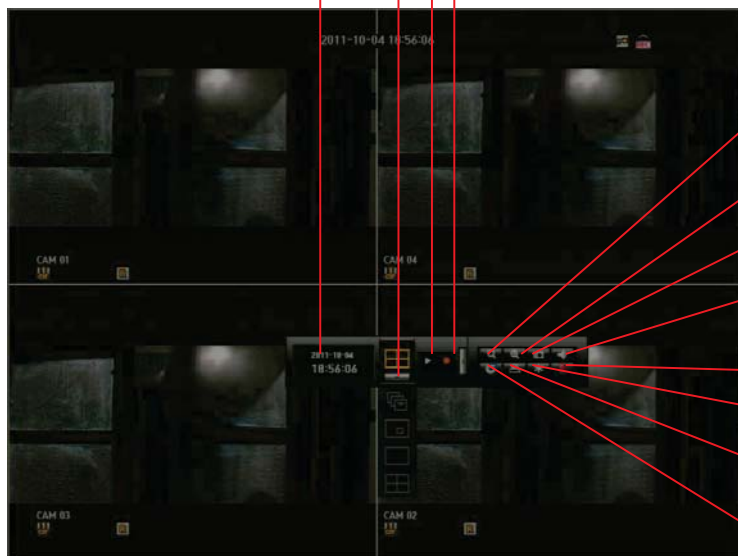
4 → 4-Split Mode

5 → Search Menu

6 → Record

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5.2.2. Control Buttons

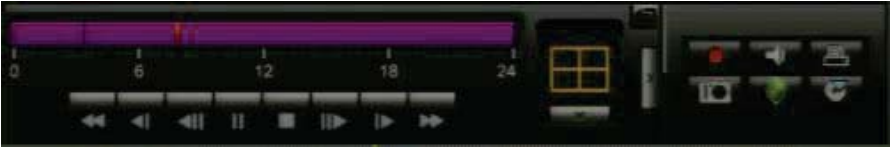


1	DIRECTS YOU TO SEARCH MENU
2	ENLARGES THE SELECTED AREA. ONLY IN A SINGLE LIVE MODE
3	CAPTURE IMAGES
4	MUTE OR AUDIO OFF
5	STOPS THE ALARM IF IT'S ACTIVATED
6	FREEZES THE LIVE SCREEN TEMPORARILY
7	PRINTS IMAGES CAPTURED
8	BACKUP YOUR DATA BY USING USB DRIVE
9	DISPLAYS CURRENT DATE & TIME.
10	MENU EXPANSION BUTTON
11	ENTERS PLAY MODE IF A FILE TO PLAY EXISTS AND IF NOT, ENTERS SEARCH MODE
12	START/ENDS RECORDING THE LIVE SCREEN

- 1 SEARCH
- 2 ZOOM
- 3 CAPTURE
- 4 MUTE
- 5 ALARM OFF
- 6 FREEZE
- 7 PRINT
- 8 BACKUP

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5.3. PLAYBACK LAUNCHER

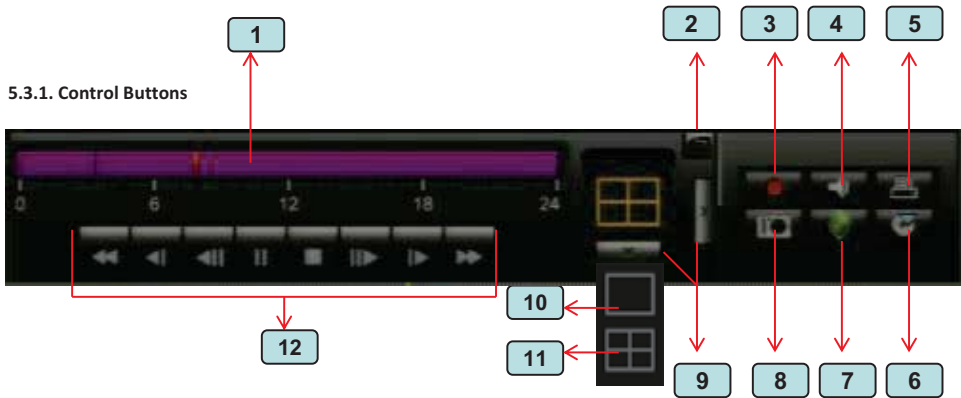


- 1) Select a data item and click <Play> in the Search Menu or in Mouse Menu. The selected data is played and the play launcher appears on the screen.
 - If there is an existing data, <Play> will start immediately without performing the search
- 2) You can play up to 4 channels in real time in a 4 CH DVR. (8 & 16 CH DVRs will allow you play up to 8 & 16 channels in real time)
 - In a split mode, the real time playback may not be supported, depending on the record quality, resolution and number of channels. Some frame rates may be supported
- 3) Playback Information: Displays the date and time of the current data in the top corner.
- 4) Mode Switch: Select a desired play mode or press the [MODE] button to switch the screen mode to 4-split and Single in that sequence. (8 & 16 channel DVRs will vary)
 - The default channel of the Live Mode is CH1, which can be changed later.
- 5) ■ Switches to Live Mode.
- 6) ● Records all channels.
- 7) Play Time: Displays the time and date of the current video
- 8) Play Bar: Displays the time of recorded data in the selected channel for the past 24 hours; the red gridline indicates the current play time.
 - Speed: Supports various speed options of x1, x2(-2), x4 (-4), x8(-8), x16(-16), x32(-32) and x64(-64).
 - Slow: Supports slow speed options of x1/2(-1/2), x1/4(-1/4) and x1/8(-1/8)



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5.3.1. Control Buttons



1

PLAYBAR: Displays the time of recorded data in the selected channel for the past 24 hours

2

RETURN BUTTON: Redirects to Search Menu

3

RECORD: Records all channels in Live Mode.

4

MUTE: Turns off all sound/ Audio off

5

PRINT: Allows you to Print image either in Live or Playback Mode

6

BACKUP: Backup you data by using USB Drive or External HDD

7

PROTECT: You can protect recorded data from HDD overwriting.

8

CAPTURE: You can capture video image either in Playback Mode or Live Mode (100 max)

9

MENU EXPANSIOIN BUTTON: Open or hide menu buttons

10

SINGLE SCREEN: Single screen mode.

11

4-SPLIT SCREEN: View images in four screens

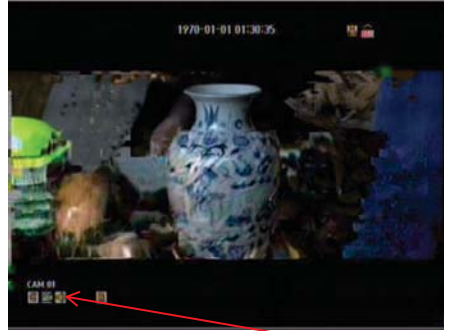
12

PLAYBACK CONTROL BUTTON: Allows user to control playback at desired function.

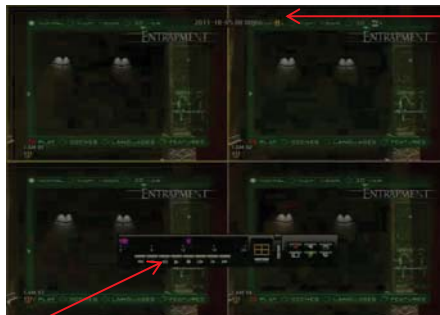
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5.3.2. Playback (P) and Trick Mode (Pause / FF/ REW / Frame Advance)

1



- 1 **Playback Icon:** To playback any recorded files, press **PB** button, '▶'. Icon will be displayed on the right-top of the screen during the playback. Recorded time will be displayed in white under current time. To stop playback and go to live view, press "STOP" button.
- 2 **Playback Audio Icon:** This icon indicates an audio for the file being playback.
- 3 You can FF, REW and pause during the playback mode. **FF** and **REW** have 6 different speeds.
- 4 During the playback, you can watch pictures in **frame by frame mode**. To view next or previous I-Frame video still image, press **PAUSE** button and press **▶▶** or **◀◀** in **pause mode**.



3

4

To watch a certain channel in full screen mode, press a channel number from a remote controller. To go back to the original playback mode, press the current channel number again. If you use a mouse, click the certain channel screen to display in full screen. Click the screen again to go back to original split display mode.


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5.4 PTZ CONTROL

The DVR enables you to adjust the settings of a PTZ camera as well as an ordinary one to your preference. The PTZ device can be activated only if a channel in connection with the PTZ camera is selected.

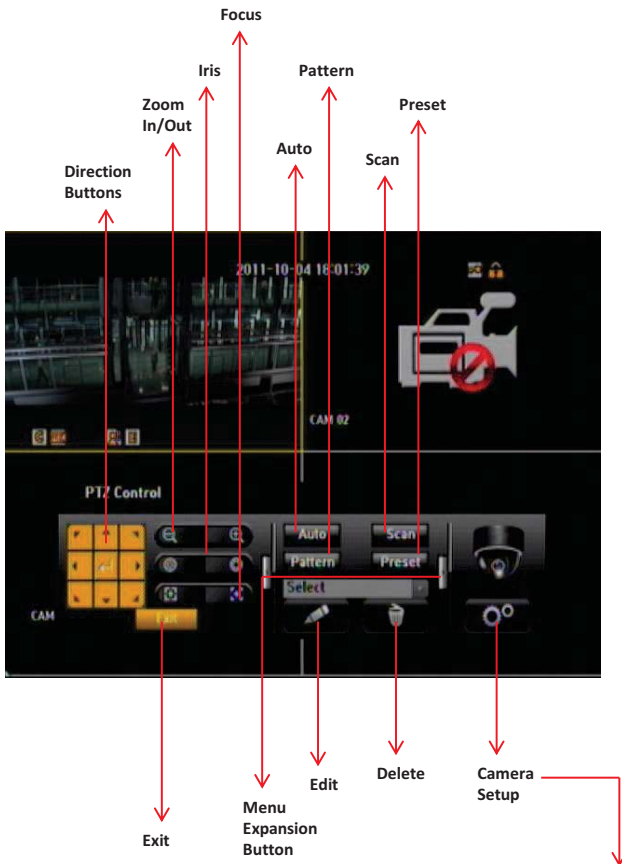
GETTING STARTED WITH PTZ

The PTZ camera is available only if a channel is selected in the following way:

- 1) Using the Mouse Menu
 - Click PTZ to display the Mouse Menu
- 2) Using the right-click menu in Live Mode
 - Right-click any area on the screen to display the context menu and select PTZ control.
- 3) Using icons on the live screen
 - Click the PTZ icon  on the live screen.



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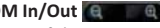






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USING THE PTZ CAMERA

You can use one camera to perform all functions of PAN, TILT & ZOOM (PTZ) for monitoring multiple places and set the preset to your preference in a desired mode.





- 1) **PTZ Direction Button/Wheel**  : Click to any given direction you wish to view. You will be able to view 360 degree.
- 2) **ZOOM In/Out**  : You can use the Zoom function of the PTZ camera for closer view.
- 3) **IRIS**  : Adjusts the intensity of radiation incoming to the iris.
- 4) **FOCUS**  : Enables you to adjust the focus manually.
- 5) **Auto** : The camera automatically runs between the two points that you selected.
- 6) **Scan** : The camera moves to the preset points in the specified sequence. If multiple presets are specified, the PTZ camera will automatically move to all of the preset points one at a time.
- 7) **Pattern** : Makes the PTZ camera remember and follow the past route.
- 8) **Edit**  : You can change the preset numeric value to personal value/name.
- 9) **Delete Preset**  : You can delete the names to go back to the preset numeric value.

Before entering the PTZ device control mode, set the Values of the PTZ device in the <Setting the PTZ> menu.

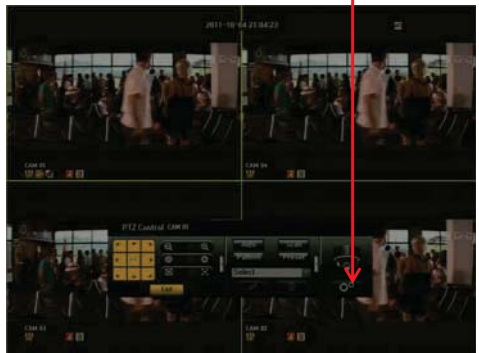
PRESET SETTING



A preset is a set of specific target points of a PTZ camera and up to 256 presets per camera can be stored.

- 1) In PTZ Control mode, use the direction buttons to adjust the camera to desired direction.
- 2) **Select the <EDIT> key**  .
- A virtual keyboard will appear to input desired name.
- 3) **Save**: You can save the preset settings.
- 4) **Delete**  : It will delete the name that was entered and will go back to the preset setting.
- 5) Click <OK>.
The preset will be saved as a name that you entered.

If you replace the camera of the channel that stores the Preset list with a new one, you should reset the preset accordingly.



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Camera Setting



A PTZ camera has its own menu system. Optimize the PTZ camera according to the DVR.

- 1) Connect the PTZ camera to the DVR and run the PTZ camera again to display the camera's protocol setting window.
- 2) Check the protocol ID of the camera.
- In <Device> Setting the PTZ, enter the PTZ camera ID in the ID input box of the channel that is connected to the PTZ camera.
- 3) Select <Camera Setup> in the PTZ Control menu.
The camera specific menu appears.
- You can configure the settings of only the cameras that support the protocols Hitron, Pelco D/P, Samsung Techwin, Honeywell, Panasonic, and Dongyang.
- 4) **PTZ Direction Button/Wheel** : Allows the user to navigate in desired direction of the camera.
- 5) **Zoom/IRIS/Focus**: Zoom-You can zoom in or out image by using the ZOOM button. IRIS- You can adjust the entering light amount by using the IRIS button. Focus- You can adjust the focus by using the FOCUS button.
- 6) **ESC**: Allows you to exit the program without saving.
- 7) **Ctrl (Control)**: By pressing the Direction Button along with the Ctrl button, you change the value of angle.
- 8) **Exit**: By clicking the Exit button, it will redirect you to the PTZ control.



5.5. Recording :



- 1) **Manual Recording Icon**: If DVR starts recording by manual trigger, recording indication icon **R** will be displayed on the left top of the screen. To stop recording, press **RECORD** button again.
- 2) **Audio Icon** : This audio icon (bottom of screen) is not displayed if you set MUTE on. The number indicates the selected audio channel for the output to speaker.
- 3) **Event Recording Icon**: When DVR starts recording by events (**Schedule** Recording **S**, **Regular/manual** Recording **R**, **External Sensor** driven Recording **E**), the recording icon will be activated. Recording will stop when the event is terminated.

Chapter 6. Protect Video/Audio File

6.1. Protect Registration

You can protect important recorded files from HDD overwriting. Register important files to protect list.



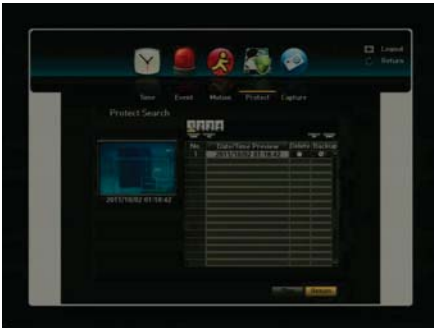
How to protect important files from HDD overwriting?

During the playback of recorded file, you can transfer current retrieving file to **PROTECT LIST**. This file will not be erased while it is under **PROTECT LIST**, which is a safe space of your HDD. **You can protect maximum 6 files in the PROTECT LIST.**

With a mouse, right click to pop **main menu** window. Click **PROTECT** button. Click **YES** on the **PROTECT LIST REGISTER** window.

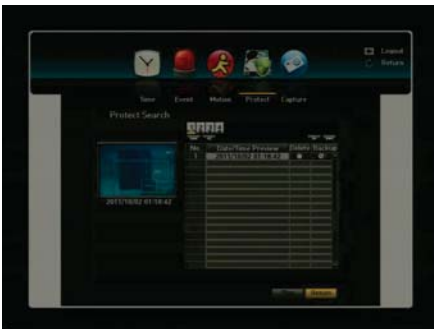
IMPORTANT:

- 1) You can register up to **6 files per each HDD** in your DVR under the **PROTECT LIST**
- 2) You cannot register the file still in recording. You must finish recording to register this file to **PROTECT LIST**.
- 3) **LOCK** Button has two functions. During playback, use **PROTECT LIST** button. In other operation modes, use **SECURITY MODE** button to enable password mode.



6.2. Playback and Remove Protected File

You can manage protected files separately from regular recorded files (clips) stored in HDD.



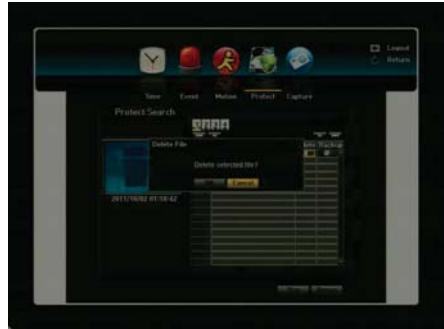
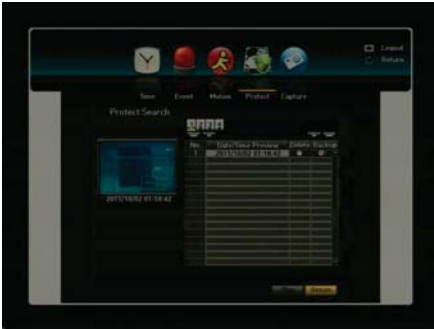
How to search and playback protected files?

Press **SEARCH** button and select **PROTECT LIST**. It will show start time.

Press **ENTER** to select the file, and press **PLAY** button to playback.

Using a mouse, click **SEARCH ->PROTECT**.

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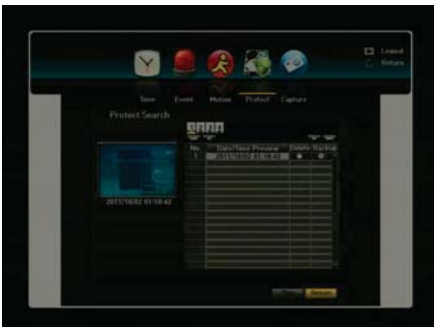
How to delete protected files?

To remove old files from PROTECT LIST, go to **PROTECT LIST** menu. Select file(s) you want to remove. Click **DELETE** and **YES** to remove it permanently.

IMPORTANT: If you click **YES**, the file will be erased from HDD permanently and will not be recovered.

6.3. Protected File Backup

Protected files are very important and are valuable evidences for any incidents. You can make a copy of protected files into USB memory same as ordinary backup function of your DVR.



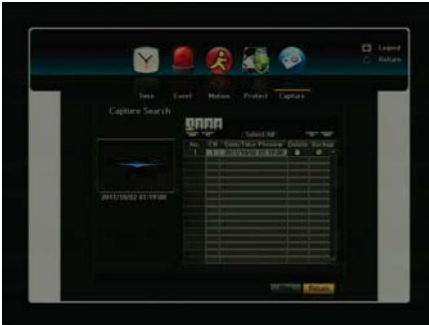
How to backup protected files?

- 1) Go to **PROTECT LIST** menu.
- 2) Select a file to backup
- 3) Press **Backup** button. Then, choose External HDD or USB backup.
- 4) Insert a USB memory stick to USB port
- 5) You **DO NOT** have to select the starting/ending time for backup. It will be automatically detected when you select a file for a backup.
- 6) Select the **channel(s)**, **format type**, and press **OK**. You will see the file size for which to be backup.
- 7) To start backup, click **START** button.

Chapter 7. Capture Video Still Image

7.1. Still Image Capture

You can capture and save up to 100 still images and retrieve, delete, or back them up easily. You can capture videos instantly using a mouse or remote control.



How to capture video images?

During playback mode (including FF, REW and Pause) or live display, you can capture current video image using a mouse or remote control.

Mouse : Click **Capture** (camera icon) button at the main menu window

Remote controller : Press **ENTER** button

Front keypads : Press **ENTER** button

When you click capture button, DVR stores all channels immediately into temporal buffer.



Once you click capture, you will see a channel select menu to select channels to save into HDD.

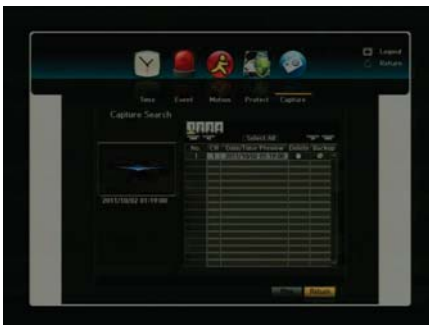
Using **direction keys** or a **mouse**, and **ENTER** button, you can designate which channels to save.

You can select multiple channels to save.

After selecting all desirable channels, press **OK** button to store pictures into HDD.

7.2. Retrieve and View Captured Image

Your DVR keeps and manages captured files separately from other video files stored in HDD. You can retrieve them at any time unless you remove them from **CAPTURE LIST**. You can store up to 100 captured images in master HDD.



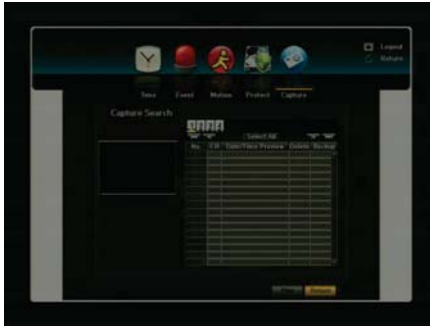
How to retrieve captured files?

When you capture video images, you should go to **CAPTURE LIST** to search, view, backup or erase captured images.

Click **SEARCH** button and select **CAPTURE LIST**.

Then you will see captured file list which will show you captured time and channel information.

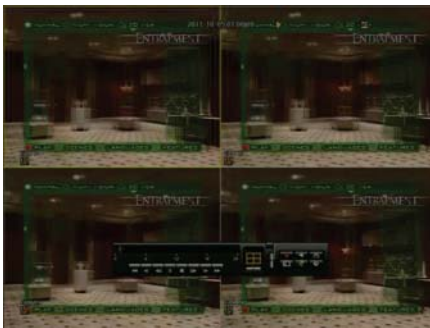
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How to view captured images?

Press **SEARCH -> CAPTURE**
Select a file and press **VIEW** button.

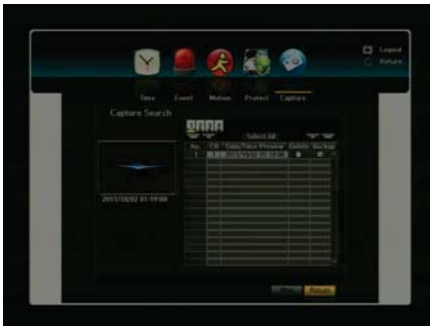
There, you can retrieve selected image. To identify this image from CAPTURE LIST, **CAPTURED** message will be displayed on left-bottom of the screen.



The captured time and channel Information are displayed in white on the screen.

7.3. Remove Captured Image

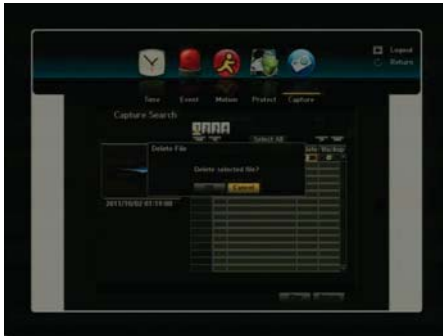
You can save up to 100 captured images into our HDD. You should erase some saved images to save new captured images.



How to remove captured image files?

IMPORTANT: If there are 100 captured images in your HDD and you try to capture new video images, the oldest image will be erased automatically to save new images. To protect your captured images, please maintain your captured images not to exceed 100 images.

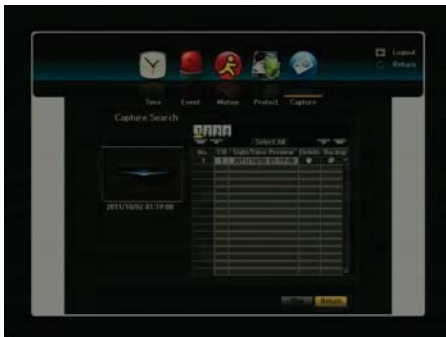
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To erase image files from CAPTURE LIST, press **SEARCH -> CAPTURE**. Select a file to remove. Press **DELETE** button at the bottom.

7.4. Backup Captured Image

Captured image files are very important and are valuable evidences for any incidents. You can make a copy of captured files into a USB memory stick.



How to backup captured image files?

Press **SEARCH -> CAPTURE** LIST menu. **Select a file** to backup from captured file list.

Insert a USB memory stick to a USB port. Press **BACKUP** button.

When the backup is completed, **BACKUP COMPLETED** message will be appeared on the screen.



Chapter 8. NVR (NetViewer)

8.1. Getting Started

8.1.1. System Requirement

- Pentium 4 or above recommended
- O/S : Microsoft Windows XP, Vista, Windows 7
- 2GB RAM or above recommended
- Super VGA 512M or above (1GB recommended)
- 10/100 Base T network card for LAN operation

8.1.2. Network Environment

	Client PC	DVR
Recommended	More than 3 Mbps	More than 3 Mbps

8.1.3. Net Viewer Program Installation

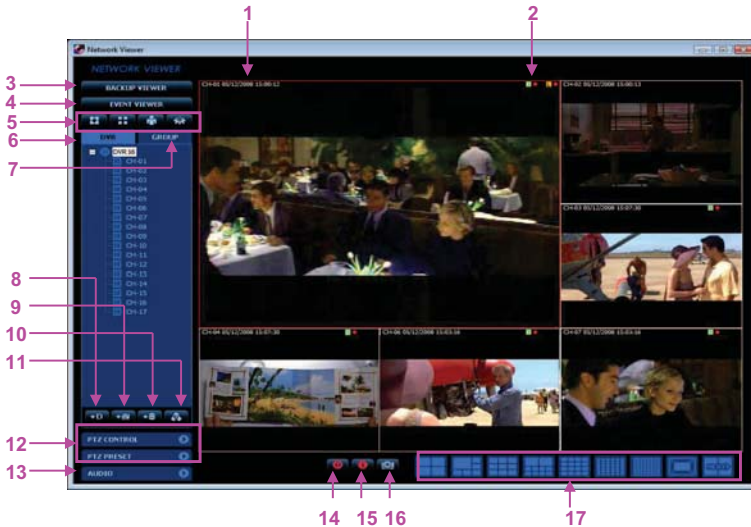
To start network viewer installation:

1. Turn your PC ON.
2. Insert installation CD into the CD-ROM drive.
3. Execute Setup.exe, so it installs Net Viewer automatically and generates Icon on the desk top screen.
4. Click the Net Viewer Icon, then network viewer will appear on the screen as below.



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8.2. Buttons and Functions



1. Date / Time : Displays current date and time of video.

2. Recording Status : DVR (green) and client PC (orange) will be shown in different colors.

DVR Recording  Local record 

3. Backup Viewer : A control key for playback from a DVR or client PC.

4. Event Viewer : A control key for event log from a DVR or client PC.

5. Connect / Disconnect / Local Setup / Device Setup :

1 Connect key: Connect to cameras registered in current channel group.

2 Disconnect key : Disconnect from cameras registered in current channel group.

3 Local Setup key : Manage recording policy, schedule setup, and recording directory for a client PC.

4 Device Setup key: Update/revise your DVR configurations.



6. DVR : To navigate DVR list and cameras.

7. Group : To navigate group list and cameras.

8. Add DVR : Menu button for configuration of connection for DVRs.

9. Add IP Cameras : Menu button for configuration of IP Cameras.

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- 10. **Add Video Server** : Reserved menu button for configuration of connection for Video Server
- 11. **Save Group** : You can combine any cameras from same or different DVRs into a certain group.
- 12. **PTZF Control & Preset** : You can control PTZ cameras. After controlling PTZ cameras to find the preferred view, press **Preset** key to save the setting. Select a number from 1 to 10 with spin button. Press **Set** button to save it to preset location you selected. You can go back to that setting anytime when you press **Go** button and it will take you to the preset location of the camera.
- 13. **Audio** : You can adjust speaker and microphone volume.
- 14. **DVR Record** : Control button for remote recording for DVR(s).
- 15. **Local record** : Control button for local recording for client PC.
- 16. **Capture** : Capture video still images.
- 17. **Multi Screen Display** : Displays in 4, 6, 8, 9,16,32, 64, and a full screen mode.

Note

You must complete network setup before using Net Viewer program.

1. During the network setup, you must create and register your own network ID and password for each DVR. This setup is required only once for the first connection. If you will use more than one DVR through the same network, you should assign a different port number (router port forwarding) to each DVR. You should also create and register different network ID for each DVR.
2. **ID and password you set up for each DVR will be used when you connect to that DVR using NetViewer or WebViewer.**
3. If you want to use static IP address for DVR, please type DVR IP address into IP address field manually.



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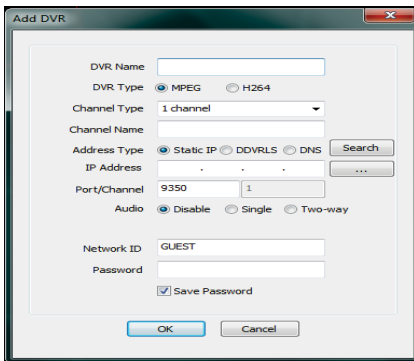
8.3. Registering DVR(s) and Cameras (Channels)

Before connecting to DVR(s) using NetViewer program, you must register DVR(s) and cameras (channels) to NetViewer program.

First, click  button to register DVR(s) and click  to add IP cameras (channels), you will see pop-up window as below. Follow the step 3.1. to 3.3.

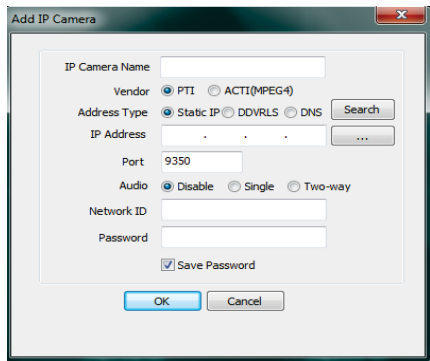
1) How to register your DVR and IP camera to NetViewer program?

Click **ADD DVR** icon  or **ADD CAMERA** icon , then **Add Device** window will pop up. Create **DVR name** (or IP camera name) and fill out other information. To save this information and register this DVR, press **OK** button. The registered DVR and its cameras will be shown on the DVR List.



The 'Add DVR' dialog box contains the following fields and options:

- DVR Name:** Text input field.
- DVR Type:** Radio buttons for **MPEG** (selected) and **H264**.
- Channel Type:** Dropdown menu set to **1 channel**.
- Channel Name:** Text input field.
- Address Type:** Radio buttons for **Static IP** (selected), **DDVRLS**, and **DNS**. A **Search** button is next to it.
- IP Address:** Text input field with a **...** button.
- Port/Channel:** Text input field with **9350** and **1** entered.
- Audio:** Radio buttons for **Disable** (selected), **Single**, and **Two-way**.
- Network ID:** Text input field with **GUEST** entered.
- Password:** Text input field.
- ☒ **Save Password**
- OK** and **Cancel** buttons at the bottom.



The 'Add IP Camera' dialog box contains the following fields and options:

- IP Camera Name:** Text input field.
- Vendor:** Radio buttons for **PTI** (selected) and **ACTI(MPEG-4)**.
- Address Type:** Radio buttons for **Static IP** (selected), **DDVRLS**, and **DNS**. A **Search** button is next to it.
- IP Address:** Text input field with a **...** button.
- Port:** Text input field with **9350** entered.
- Audio:** Radio buttons for **Disable** (selected), **Single**, and **Two-way**.
- Network ID:** Text input field.
- Password:** Text input field.
- ☒ **Save Password**
- OK** and **Cancel** buttons at the bottom.

2) How to delete DVR (Group) or IP camera from the Net Viewer program?

Right-click on DVR name or IP camera name in the DVR list and **properties** menu will pop up. Click **delete**. You can find the property information when you click **properties**.

3) Make and save a group of channels (cameras)

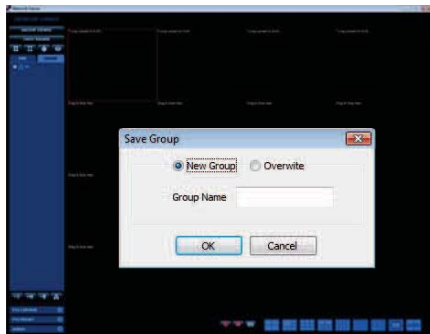
Before making a group, you must drag and drop the cameras (channels) you wish to make a group to the display panel. Then,

Select  from the left column.

New Group : Select **New Group** button to create a new group.

Overwrite : You can revise the existing group name.

You can combine any channels (cameras) from any DVRs registered to NetViewer program.



The 'Save Group' dialog box is shown over a dark background. It contains the following fields and options:

- New Group** (radio button selected) and **Overwrite** (radio button).
- Group Name:** Text input field.
- OK** and **Cancel** buttons at the bottom.

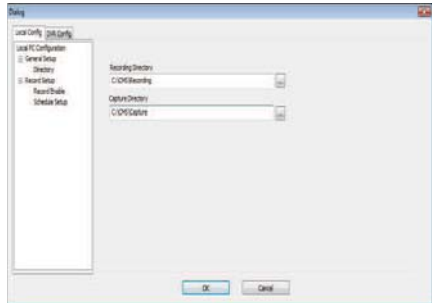
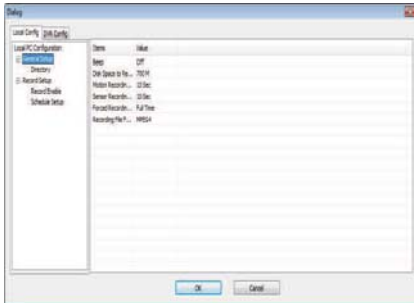
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8.4. Local PC (Client PC) Configuration

You can set your own configuration regarding record enabling, schedule setup, and recording directory for your client PC. This setup is for your local PC and will work independently from your DVR setting. To start setup, Click , and you can configure all **Recording Setup for Client PC** from a pop-up window as below.

IMPORTANT: Local PC recording will be immediately activated when you completed local PC recording setup and enable the motion/sensor/schedule recording.

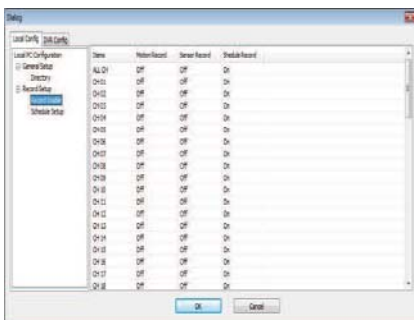
8.4.1. General Setup



- **Beep Setup** : Enable or disable beep sound warning.
- **Disk space to Remain** : HDD space need to be remained for your PC. NetViewer will use rest of your HDD space for a local recording except this space.
- **Motion Recording Time (10Sec. ~ 5Min.)** : Minimum recording time when the camera (channel) is triggered by a motion.
- **Sensor Recording Time (10Sec ~ 5Min)** : Minimum recording time when the camera (channel) is triggered by an external sensor.
- **Force Recording Time** : Maximum manual recording time to protect your HDD space.
- **Recording File Format** : H264 Format or AVI Format. Choose a file format for local recording.
- **Recording File Directory** : You can save recording files into selected file directory in local PC
- **Capture File Directory** : You can save capture image files into selected file directory in local PC

8.4.2. Record Setup

8.4.2.1. Record Enable

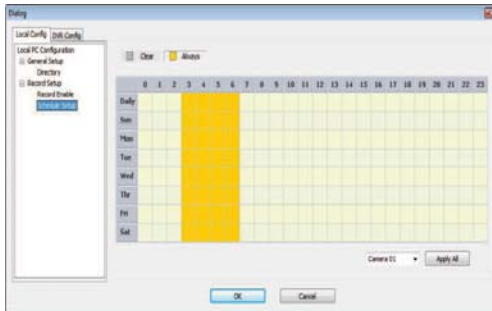


Select a channel and parameters for Motion/Sensor/Schedule driven recording for your client PC.

Select **ALL CH** to copy your setup to all other channels at once.

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8.4.2.2. Schedule Setup



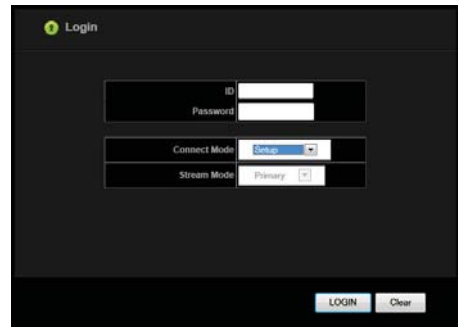
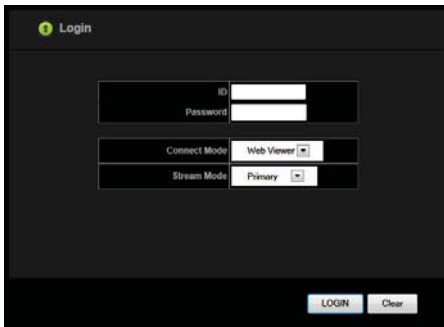
Setup your desirable recording schedule for your client PC. Choose the channel first then click **Always**.

Point starting time and drag to ending time. To cancel the schedule, click **Clear** box. After schedule setup, click **OK** button to save and activate it. Click **Apply To All** button to copy same schedule to all other channels easily.

8.4.2.3. POS Setup

CMS program supports POS using autogas protocol. Please consult with your distributor for more details.

8.5. Web Configuration



You can remotely control and manage your DVR from your Internet. We strongly recommend not to use this function in normal operation. If you change the configuration of the DVR to wrong value, the DVR may not work properly and can cause unexpected problems. This feature is for professional administrator who manages it from remote site.

To control the DVR remotely, simply type in the DVR IP address in the Internet browser. Once you have entered the IP address, a Login window will appear. To gain access, you will need your ID and Password.

You will be given two options/functions under Connect Mode, Web Viewer and Setup. To view, simply click the LOGIN button. To configure your DVR, click the down arrow button in the Connect Mode to Setup (See two images above).

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8.5.1. Video/Audio

8.5.1.1. Camera



- 1) VIDEO : You may select the video ON, OFF, COVERT 1 or COVERT 2.
- 2) AUDIO: You may select the audio ON or OFF position.
- 3) TITLE/CH NAME: Create your own name/title for each camera. If you skip this setup, camera # will be displayed on the screen.

See Page21 detailed information/instruction

8.5.1.2. Monitor/ SPOT



Adjust the brightness/contrast/hue/color for each analog camera connected to the DVR.

See page 23 for detailed information/instruction

8.5.1.3. Sequence/Event Display



Your DVR can display each live video channel in full screen (or a group of channels) in sequence mode similar to slide show in PC. Select the interval, channel, setup and duration.

See page 24 for detailed information/instruction.

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8.5.1.4. OSD/Display Position



You can configure each parameter for on-screen-display using direction keys and APPLY button. To Save and exit from this menu, press MENU.

See page 25 for detailed information/instruction

8.5.2. RECORD

You can set all parameters related to recording for each cameras independently.

8.5.2.1. Policy



DVR can record a live video by manual, schedule, event (motion detection and/or external sensor) and by network user's command. You can set the recording policy for each camera independently.

See page 27 for detailed information/instruction

8.5.2.2. Quality



Setup the record quality parameters for each camera.

- RESOLUTION
- RECORD RATE
- RECORD QUALITY

See page 28 for detailed information/instruction

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8.5.2.3. Motion



This menu allows you to set motion detection area for motion recording. To start a motion trigger recording, RECORD>POLICY>SCHEDULE must be enabled. Also RECORD>SCHEDULE must be set to EVENT or both.

See page 30 for detailed information/instruction

8.5.2.4. Event Record Duration



You can set the beginning and ending point of a recording on an event.

- Pre Event
- Post Event

See page 31 for detailed information/instruction

8.5.2.5. Record Option



You can enable/disable HDD overwriting feature.

See page 31 for detailed information/instruction

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8.5.3. DEVICE

You can configure the peripherals in your DVR such as PTZ control and printer

8.5.3.1. Storage



This feature will display your storage (HDD) status.

See page 32 for detailed information/instruction.

8.5.3.2. Sensor Detection



Select the right type of your external sensors connected to the DVR. There are two different types of sensors, (N.O.- Normal Open and N.C.- Normal Close). Press APPLY button to change and select the sensor type.

See page 33 for detailed information/instruction

8.5.3.3. Video Loss Detection



Video Loss Detection: Select ON or OFF for each channel.

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8.5.3.4. PTZ



DVR supports PAN, TILT, ZOOM and FOCUS control for PTZF cameras or servers. It has RS485 port to connect to PTZ camera and supports most industrial common protocols.

See page 35 for detailed information/instruction

8.5.3.5. System Controller



You can set the RS-485 communicator for use of PTZ with the DVR. You can set the values of each communication setup of the remote device.

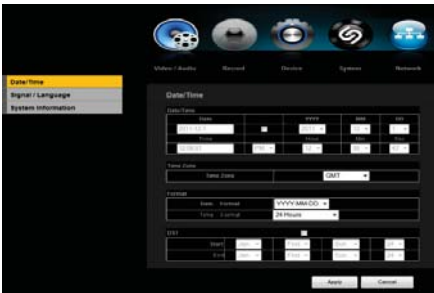
See page 35 for detailed information/instruction

8.5.4. SYSTEM

The menu will help you to configure DVR for basic operation.

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8.5.4.1. Date/Time



You can set up the current date and time manually.

See page 36 for detailed information/instruction.

8.5.4.2. Signal/Language



DVR supports up to 48 different languages. Select your preferred languages.

Video Signal: Select your video signal format type, NTSC or PAL.

See page 37 for detailed information/instruction

8.5.4.3. System Information



This menu will display software version and MAC address.

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8.5.5. NETWORK

With this menu, you can setup the network for DVR. Before starting this setup, the DVR must be connected to the router by LAN cable. Also, please make sure that internet is working properly.

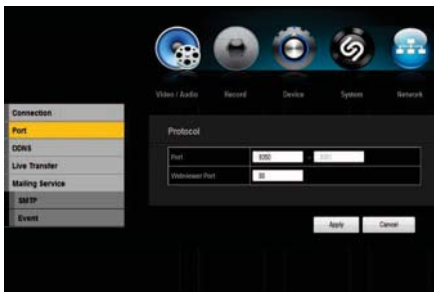
8.5.5.1. Connection



You can set the network connection route and protocol.

See page 46 for detailed information/instruction

8.5.5.2. Port



- 1) Port (TCP): Initially, 9350-9351 is set. It increases/decreased by TCP: It has better stability and lower speed when compared to UDP and recommended for internet environments.
- 2) Web Viewer Port: Enter the port number for the Web Viewer. Initially, it is set to 80.
- 3) When the protocol setup is complete, click OK.

8.5.5.3. DDNS



You can set the DDNS site for a remote user's network connection.

See page 47 for detailed information/instruction

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8.5.5.4. Live Transfer



You can set the quality of the image that is transferred from the DVR to the network.

- 1) Record Rate: Choose from OFF to 30fps (Highest)
- 2) Record Quality: Level 1 (Lowest) to Level 8 (Highest)

8.5.5.5. Mailing Service



You can send e-mail to a registered DVR user at a specific time interval or if an events occurs.

See page 49 for detailed information/instruction

8.5.5.5.1 SMTP



See page 49 for detailed information/instruction

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

8.5.5.5.2 Event

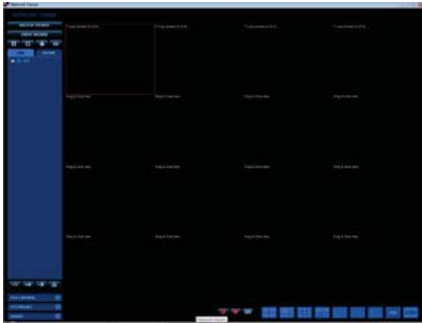


You can set the interval and type of event that will be sent to the user.

See page 50 for detailed information/instruction.

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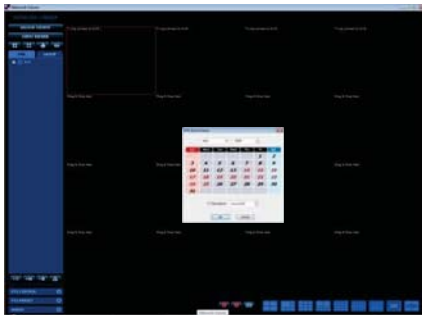
8.6. Backup Viewer



There are two backup file search modes: **DVR Search** (for recorded files in DVR) and **LOCAL Search** (for your local recorded files in your PC HDD).

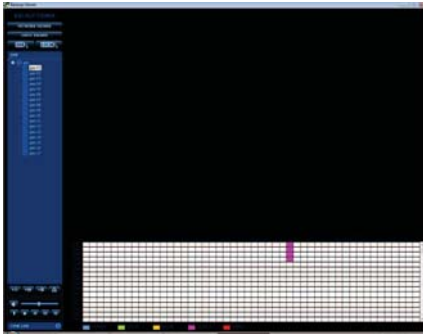
To playback recorded files, you need to find the files using the appropriate search mode.

8.6.1.DVR Search



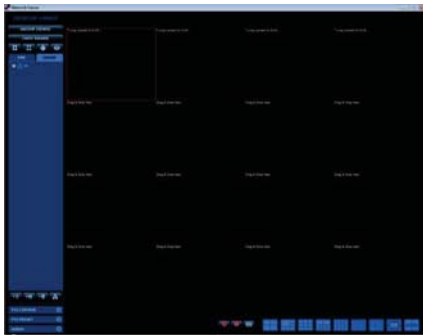
After selecting target DVR, press **DVR SEARCH** button. The backup viewer will connect to selected DVR and get recorded file information from the DVR. The backup viewer will show available dates in red on the calendar as below. Choose the month, date and press OK button. It will display the graphic time bar. The time with recorded file(s) will be displayed in color. Each color indicates different trigger type of the record.

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TIME LINE : You can show/hide the time line graphic bar. Press **TIME LINE** button to show/hide the time table.

8.6.1.1. DVR Play Back

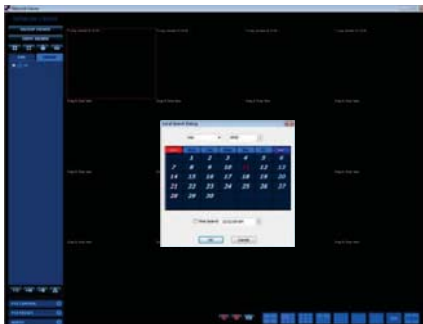


To playback recorded files at specific time and triggered by specific event, **click** the time block and Backup Viewer will start to play back the files in selected time block.

You can stop the video at any time by pressing **"STOP"** button. FF, REW, PAUSE are available during playback.

8.6.2. Local Search

Press **LOCAL SEARCH** button. Select the month date & time and press **OK** button. After selecting date and time, the Backup Viewer will display the local backup files (from your PC HDD).



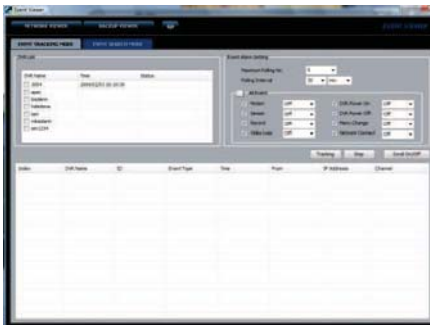
ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

8.6.2.1 Local Play Back



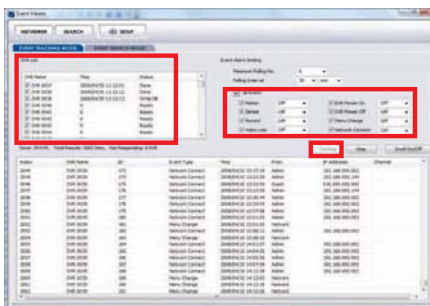
To playback recorded files at specific time and triggered by specific event, **click** the time block and Backup Viewer will start to play back the files in selected time block. You can stop the video at any time by pressing “**STOP**” button. FF, REW, and PAUSE are available during playback.

8.7. Event Viewer



There are two Event Search modes: **Event Tracking Mode** and **Event Search Mode**.

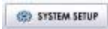
8.7.1. EVENT TRACKING MODE



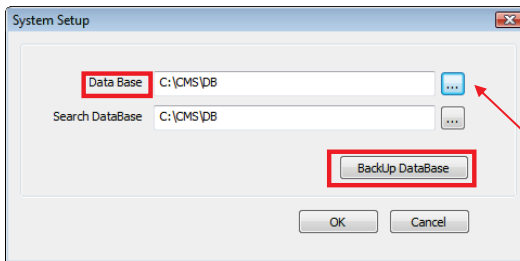
You can track the event by trigger mode. After select DVR(s) with event, press **Tracking** button. Then the event viewer will display the event files.

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8.7.1.1. Save Event Files



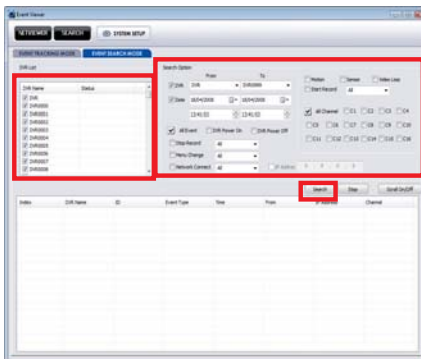
After event viewer displays the event files, you can save the file to local **PC Data Base**.



Data Base : Default directory is C:\CMS\DB. You can change the directory by pressing

Backup Database : Press Backup Database button to start backup the data

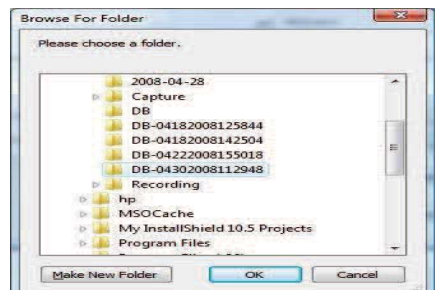
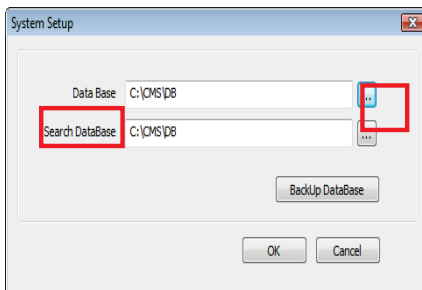
8.7.2. EVENT SEARCH MODE



You can search the event after selecting DVR(s) and search options. Click **Search** button. The event search will display event index files.

8.7.2.1 Search Database

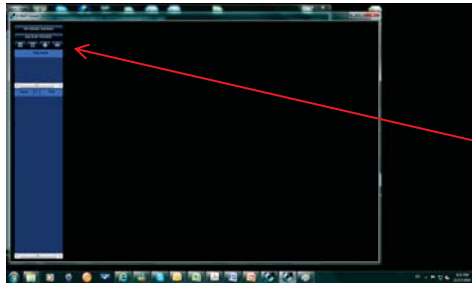
You can retrieve a specific search index file by using Search Database button.



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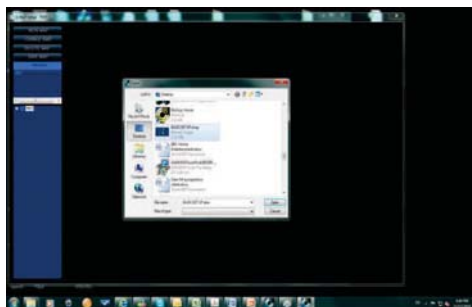
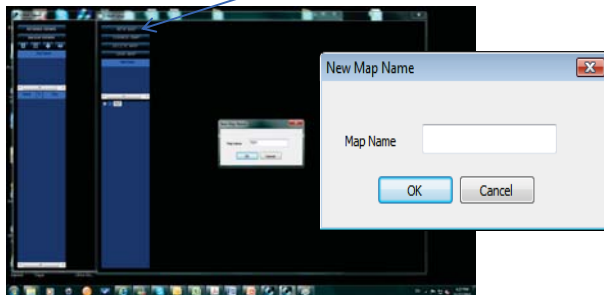
8.8. E-Map Viewer

8.8.1. E-map Setup



In order to view cameras on e-map, it is necessary to set up E-Map Viewer first:

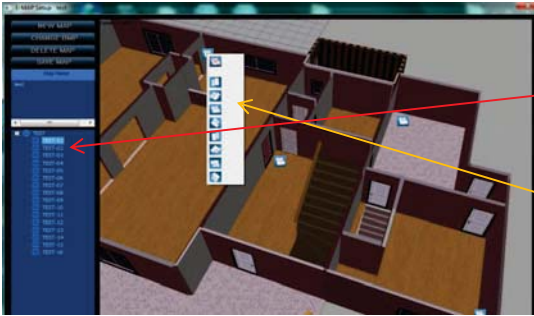
1. Click on Emap Viewer icon. 
(the icon will be showing up on your desktop when you first install CMS software program)
2. Select E-MAP Setup button 
3. Click on NEW MAP tab  and input map name. Press OK button. Your map name will be showing up here



4. Select map name you just created and press CHANGE BMP tab. 


Choose map image from your files. **Your map image should be in .bmp file format**

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Window will be filled with the map you selected as shown on the left.

5. Once your map is set in the background, choose the camera, drag and drop where you want it located in the map as shown in the picture (**note: if you dropped it in the wrong location, choose the camera again from the left panel and drag it to the place where you want it to be. The camera icon will move to the corrected location**). You can delete camera or change camera directions by right-clicking the mouse.

Save all the settings you created by pressing SAVE MAP tab  in the top left corner of the screen, and close it.

You can delete map by choosing DELETE MAP tab




Click on **Local Setup** button 

Event configuration window will appear. Select color-coded event mode, set blinking time, and beep option as you prefer.




8.8.3. Connect and Disconnect



Click **Connect** button  to connect. It will pull up the event data when an event selected is activated.

If you drag mouse to a camera in the map, it will give you an information of the time on which last event occurred.

Click the **Disconnect** button  to stop the event pulling up.

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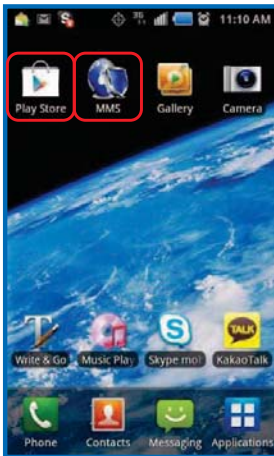
Click camera icon on the map, and live screen will appear.

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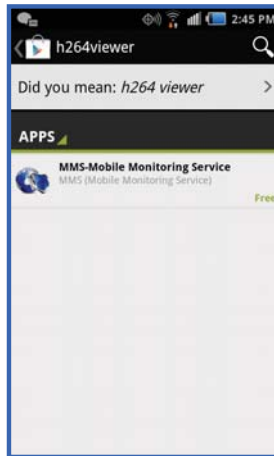
Chapter 1. Mobile viewing using your Android app.

1.1 Getting Started: How to download app

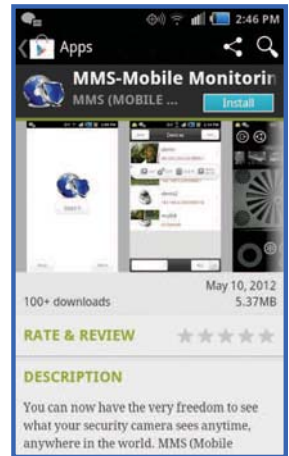
Before using your MMS Android app., there are very important steps one must follow to gain full access. We will touch upon these steps and go over the procedures to have full access at your fingertips when using your Smartphone or a Tablet.



Your first step to using the MMS (Mobile Monitoring Service) app on your Smartphone is to start by going to the Android app store (Play Store). Once you have found the Play Store, click on the icon to begin your very first step in installing the MMS app.



Once you have found/located the MMS app, click on the tab for free installation.



After you clicked the tab, you will then be routed to the install page. Click the install button

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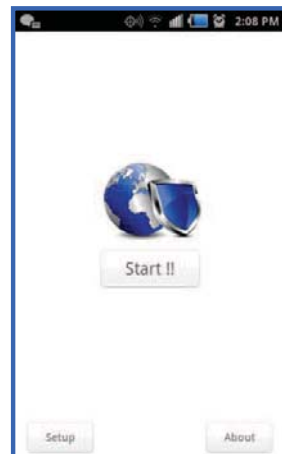
Once you have clicked the install button, it will ask you to Accept & download. Click the Accept & download button.



After you have clicked the Accept & Install button, it will initialize the downloading process



After it has finished downloading the MMS app, the page will ask you to either Open or Uninstall. Click the Open button



After you have clicked the Open button, it will route to the Start page. Click the Start button.

Chapter 2. Device , Group and DVR Setup

2.1. Adding Device



Once you've clicked the Start button, your first step is to add Device(s) that you would like to view from. On the upper right corner of the screen, click the Add button

2.1.1. Device

Model Type: Scroll down to select which model type you will be using. For this purpose, we chose DVR.

Name: You may enter any name for your device.

IP/URL: You will need to enter your IP address (or URL) of the DVR in the section. (ex. 192.168.0.200)

Port: Enter the Port number. (ex. 9350)

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Once you've clicked the Start button, your first step is to add Device(s) that you would like to view from. On the upper right corner of the screen, click the Add button



After you have clicked the Add button, you will then be routed to the Device page. Here you will need to enter all required information. In this manual, we explain the procedure of the registration of the DVR.

However, you can register a specific camera among cameras which are connected to the DVR.

Device: You can add only a single channel of the DVR.


Group: You can combine single channel device and group them together.

DVR: You can add multi-channel of the DVR.

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Enable DDVRLS: DDVRLS is server where you can register your DVR. You will need to register your own Network ID and Password first to use this device function. The purpose of using the Enable DDVRLS function is to eliminate having to enter the IP address and Port. Once you enable the DDVRLS, all you need to do is enter ID and PW that you already registered to DDVRLS server at DVR Network menu. This makes it lot easier connecting instead of memorizing your IP address and Port number.



This portion of the screen is below the screen display #9.

ID: You will have to enter Network ID which you entered to the DVR.

PW: You will have to enter Network ID which you entered to the DVR.

Channel: You may select a channel (camera) of DVR to register as a device. You can add up to 16 different channels. However, you will need to add each channel one at a time. While this may be somewhat cumbersome, this is a necessary step to be able to view all 24 channels. If you only have 4 CH DVR, then you will only have to enter only four separate times, 16CH, sixteen different times and so forth.

If you want to register all channels of your DVR and combine them as a group, we recommend to use DVR tap to register the DVR, not a camera. In this case, you don't need to repeat adding device to register each cameras (channels).

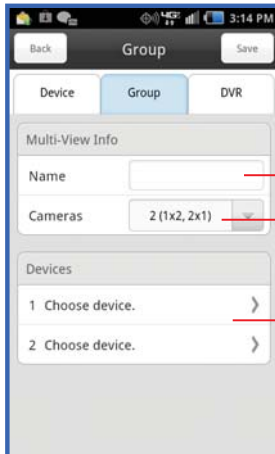
Check/Result: After you have entered all information, you can check the connection status. Simply, click the Check button and it will show you the connection status. If the connection has failed, it will show "Connection Failed" in the Result box.

After you have entered all the information, you will be able to group the channels if you wish to group them. Click the Group Tab next to the Device Tab.

Please enter Network ID and PW of your DVR to these ID / PW fields. Default ID an PW are NETWORK and 1234 same as default Network ID and PW of the DVR.

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2.1.2. Group



11. In this section, you can group your cameras to your desired configurations. You will have maximum of 24 channels/cameras to configure. Once you have selected how many cameras/channels to group, you will then need to enter a name for that group of cameras. Follow the illustrations below to see how you can group the cameras/channels.

You can name whatever group name you so desire.

Scroll down to see how you can group the channels together

Choose from device that you wish to group together



Again, depending on how many channels you have set up (24 CH maximum), you can choose and select how you wish to group them. See above pictures for example.

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2.1.3. DVR

If you add DVR with this menu, you don't need to add each cameras one by one.

Name: You may enter any name for your device.
IP/URL: You will need to enter your IP address (or URL) of the DVR in the section. (ex. 192.168.0.200)
Port: Enter the Port number. (ex. 9350)

The model type for this tab will be DVR since we entering DVR information

You can choose to select different type of address. 1. StaticIP, 2. DDVRLS, 3. DNS. Static IP: Enter DVR IP address DDVRLS: Enter only ID and Password DNS: Enter domain name

You can select desired channels. You will three channel options to choose from. 4, 8, and 16 channels.

You can select from two streams, Secondary and Primary

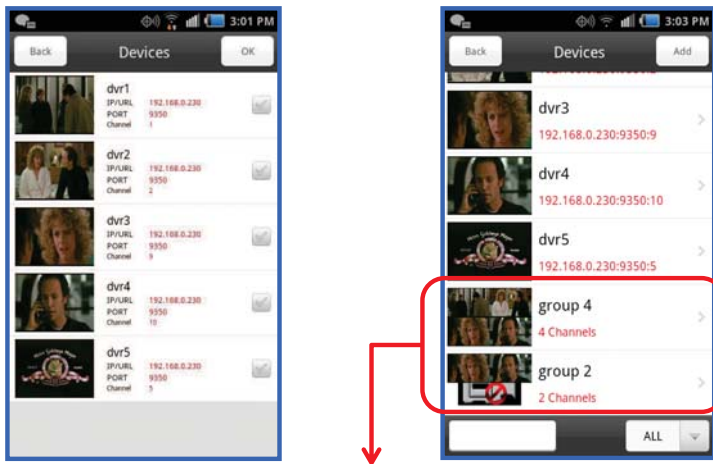
ID: You will have to enter Network ID which you entered to the DVR.
PW: You will have to enter Network ID which you entered to the DVR.
Check/Result: After you have entered all information, you can check the connection status. Simply, click the Check button and it will show you the connection status. If the connection has failed, it will show "Connection Failed" in the Result box.

The checkmark on the Show Password will reveal the password.

Please enter Network ID and PW of your DVR to these ID / PW fields. Default ID and PW are NETWORK and 1234 same as default Network ID and PW of the DVR.

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2.2. Setting Devices In A Group



To choose which cameras/channels to group them together, simply click on the check mark next to the camera/channel and click OK. If you chose to group four channels and name it Group 4 or chose to group two channels and name it Group 2, it will show on your screen with two different group name. See above picture as an example.

Group 2- 2 Channels



Group 4 - 4 Channels



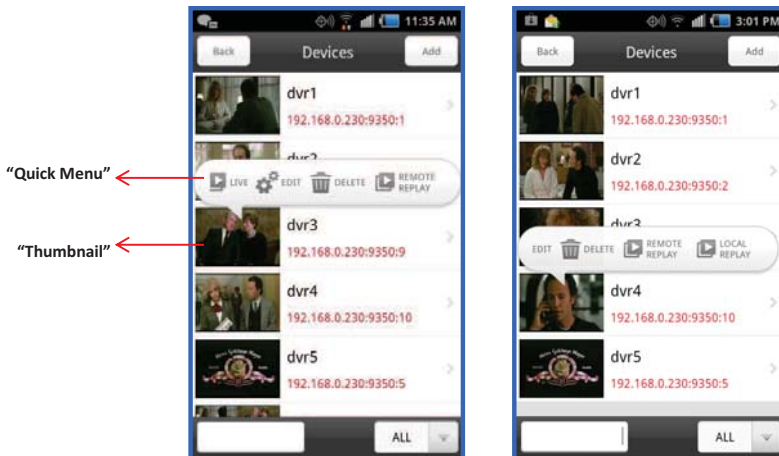
This is how you will be able to view your camera/channel when they are grouped together. Of course depending on how many channels are grouped together, you will get different number of screen images. If you group certain number of cameras/channels and there are no images displayed, you will see a no video icon as shown below.

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To view one of the grouped channels as a single full screen, tap on the desired channel once. Once you are at the full screen view, you have access to different functions.

2.3. Device Quick Menu



After you have all your devices set up, you can control your devices. Simply touch the image/thumbnail on the left side of screen and a "Quick Menu" will appear. This Quick Menu will allow you to control camera. There are total of 5 functions in this Quick Menu.

1. Live
2. Edit
3. Delete
4. Remote Replay
5. Local Replay

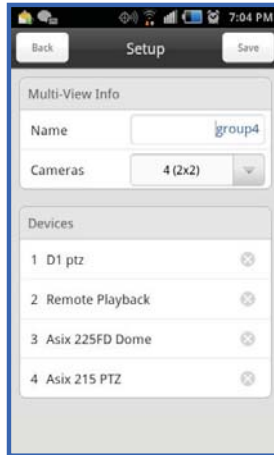
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Live



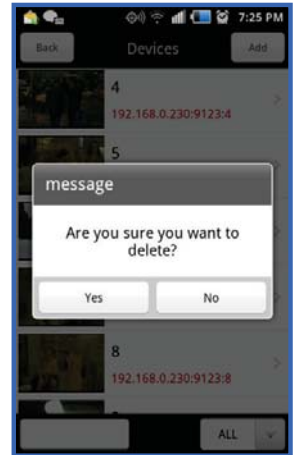
You'll be able to view live view. In this case, there are 4 channels that are grouped together.

Edit



You can edit by replacing other channels with current ones, add more channels or rename the group.

Delete



You can delete group channel or a single channel that's stored. It will ask you for the delete confirmation.

Remote Replay



You can access remotely and replay recordings from your device.

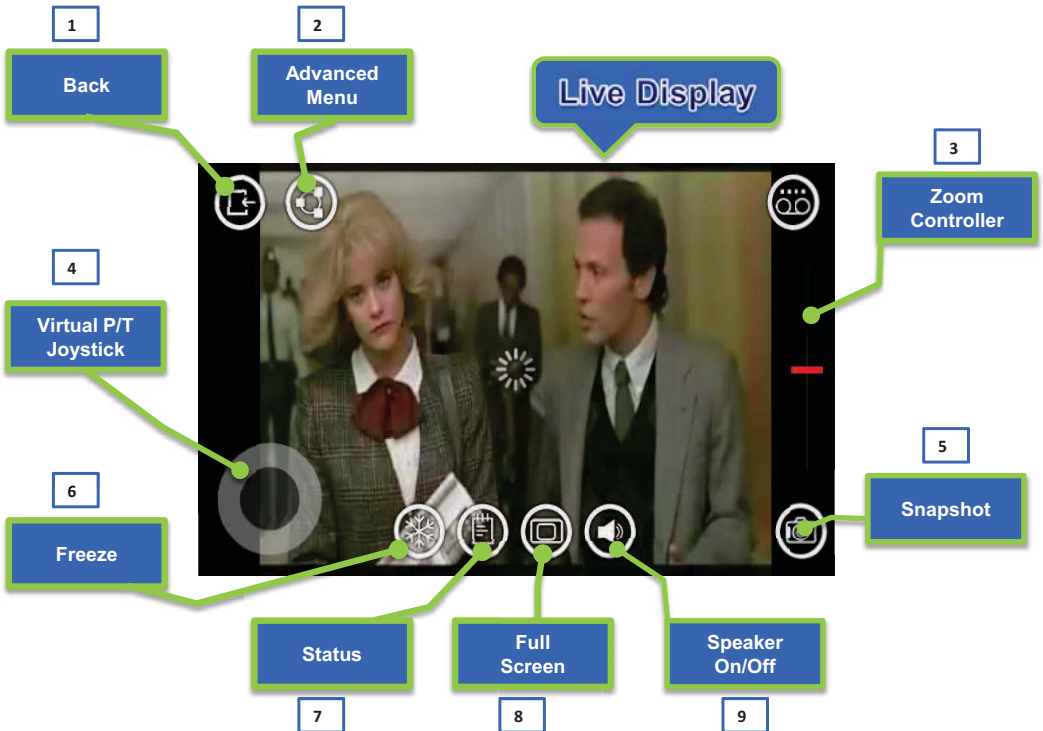
Local Replay



You can access local replay once you have recorded and saved into your device. To record, click the record button  in live viewing on the upper right corner of the screen. Once it's recorded, you can access it from your Quick Menu by pressing the Local Replay button. **This function only applies when in single device.**

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2.4. Live Display Icon Functions



- 1 Goes back to the previous page.
- 2 Will be given 5 options/functions, Alarm, Preset, Auto Scan, Tour & Pattern by using the "wheel" to navigate .
- 3 Will be able to zoom in/out by using the controller on the right.
- 4 Will be able to control the PTZ camera by using the controller.
- 5 From your mobile device, you will be able to take a snapshot of the image and store it.
- 6 Video will stop playing and freeze the image.
- 7 Will display video playing information such as Device Name, FPS, Resolution, Audio and Record File.
- 8 Will be able to view image in full screen.
- 9 Can set to have the speaker on or off.



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2.5. How to use Advance Menu button



After clicking the Advance Menu button, you will be given 5 options to choose from.

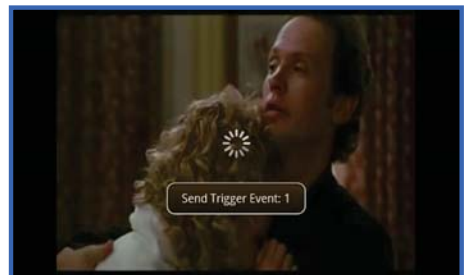
1. Alarm
2. Preset
3. Auto Scan
4. Tour
5. Pattern

You can navigate to your desired options by using the circular wheel on the left side of the screen, simply by using your finger and turning the wheel either clockwise or counter-clockwise.

2.5.1. Alarm



From your mobile device, you can trigger alarm manually in this advanced menu. You can select up to 4 trigger alarms. Keep in mind that this function does not allow you to setup the alarm. You will have to set the alarm from your DVR. Once you have selected the trigger alarm, the mobile device will trigger the alarm



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2.5.2. Preset

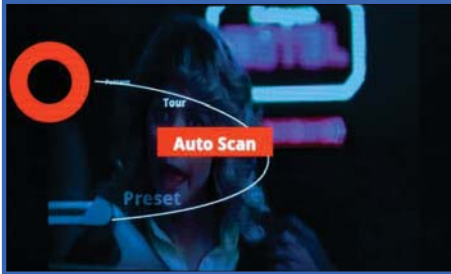


From your mobile device, you can control your PTZ camera that has already been set to go to that specific preset setting. Press the Preset button and a Preset window will appear. By using your finger, scroll down to desired Preset, 001-256 and press Set button.

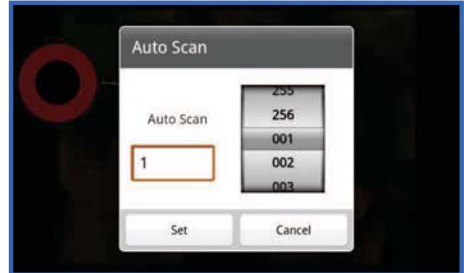


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2.5.3. Auto Scan



From your mobile device, you can perform Auto Scan by selecting the desired setting and press the Set button. Once it has been, the camera will auto scan your selection and will be able to view from your mobile device.



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2.5.4 Tour



By selecting the Tour button, you will be able to tour the camera setting by selecting the preset setting, 001-256. Once you have selected the preset number, the camera will tour the area of selected setting.

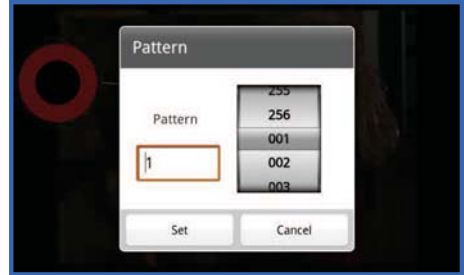


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2.5.5. Pattern

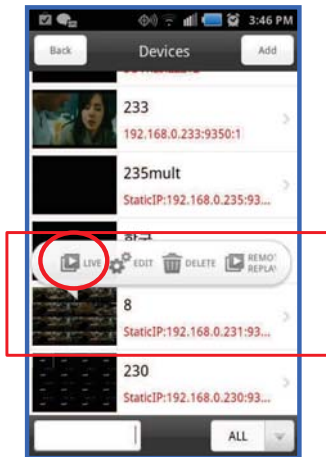


You can control the pattern of your PTZ camera by selecting the preset setting, 001-256. Once you have selected the desired setting, press the Set button. Once it's selected and set, your PTX camera will go to that selected pattern and will be able to view from you mobile device.



Chapter 3. DVR Mode

3.1 Live View



From your Device page, select the DVR. To view channels, press the thumbnail and the quick menu will appear. Press the Live tab.

Multi-Channel Mode



To view your channels as a single full screen, tap on the desired channel once. Once you are at the full screen view, you have access to different functions.

Single Channel Mode



By pressing this function/tab, it will prompt you to the next channel. It will only go to the next channel one channel at a time.



You can choose to view channel in different screen mode. For this purpose, there are 8 channels available so the channel screen mode is 1, 2, 4 and 8.

By pressing this function, it will prompt to different channels in multiple. Example: if you are in a single screen, pressing it each time will take you the next channel. If in a two screen mode, each press of the button will take you the next channel in the intervals of two channel. For four channel screen mode, you will switch over to the channels in the intervals of four channels.









3.2 Remote Replay



You can access and view your stored data from your network storage. Simply go to your device list and select the data that you would like to view. Click on the image and a Quick Menu bar will appear above the image. Select "Remote Replay".

3.2.1. Play Control Icon Function

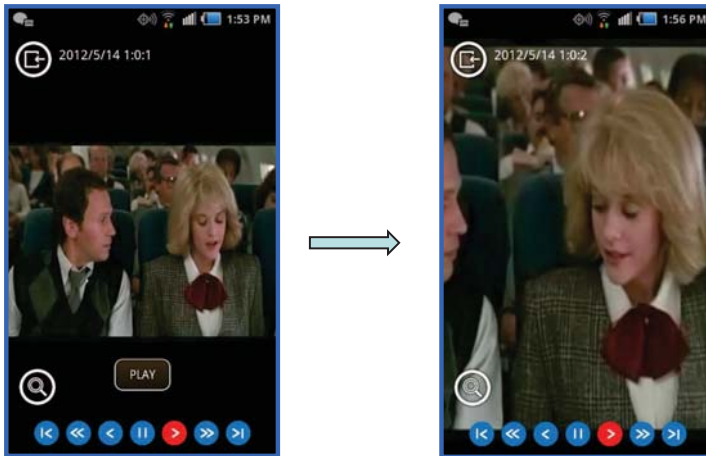
Playback Control

-  Go to First
-  Fast Backward Play
-  Backward Play
-  Pause
-  Forward Play
-  Fast Forward Play
-  Go to Last
-  Calendar Search

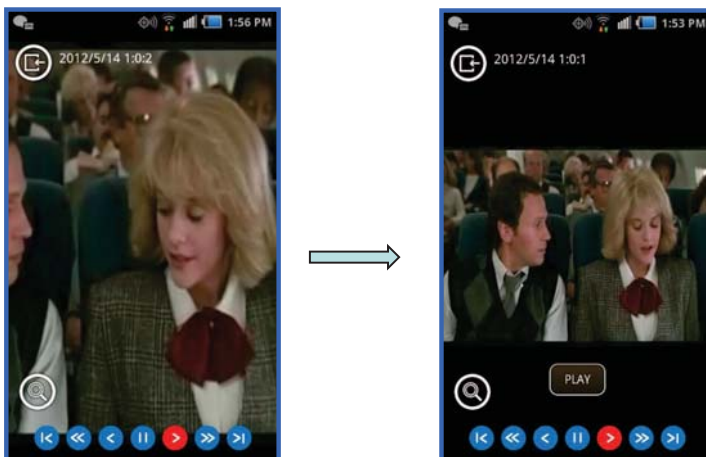


You can use the playback control buttons to navigate to your desired recordings.

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To view image in full screen, tap on the screen twice.




To back to the normal scale, tap on the screen twice again.

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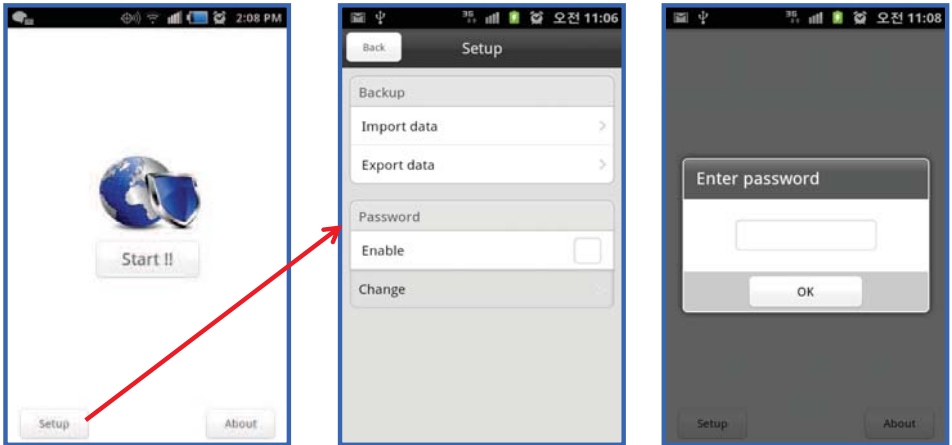


3.2.2. Calendar Search

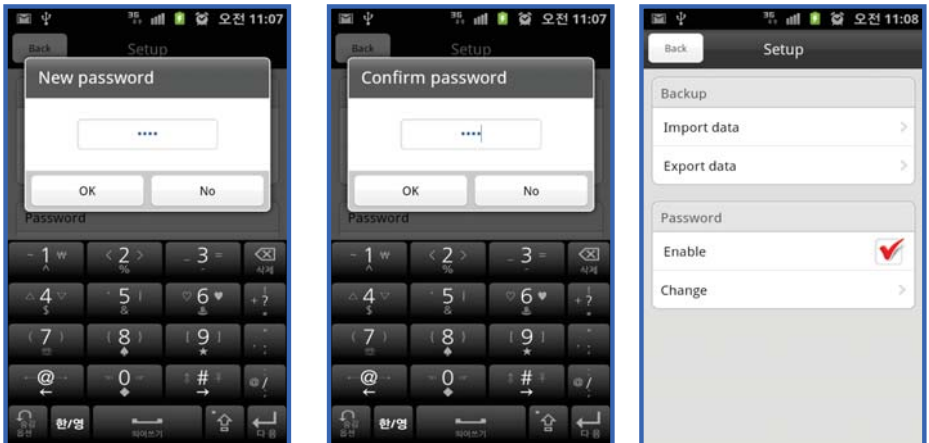


You can retrieve your stored data from you calendar search. To search by calendar, simply click on the calendar search icon.  Doing so, you can search by specific date and time. If the data is stored, date and time will be indicated in red. Select the desired date and time and press the Play button.

Chapter 4. Setting up Password



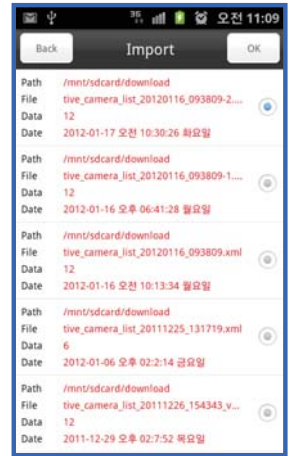
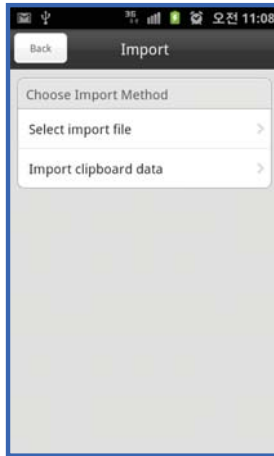
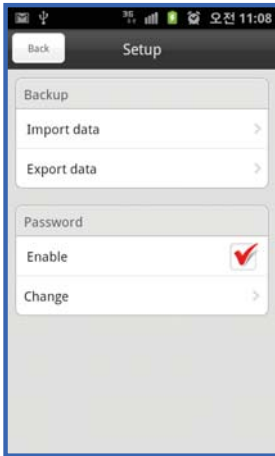
From you Setup page, click the Enable button to start your Password setup. After you have clicked the Enable button, a Enter Password window will appear.



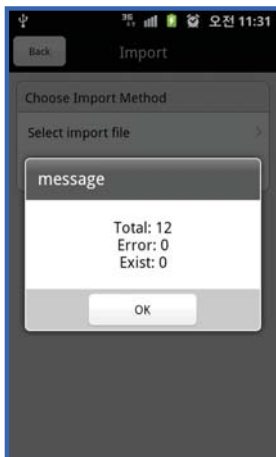
After you have entered you Password, click OK. Once you have entered your new password, a Confirm Password window will appear. Re-enter your password and click OK. After you have entered your password, check mark the Enable box. After you have completed the entering the password, you will need to enter your password at all time to gain access to your MMS app.

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4.1 How to Import



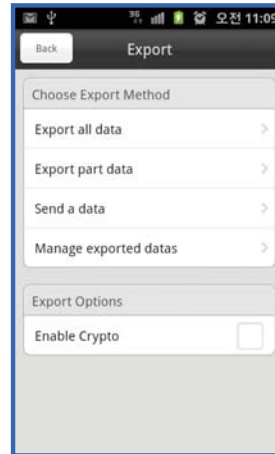
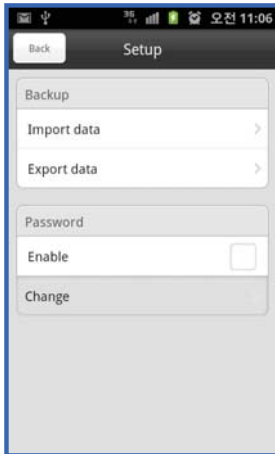
To import data, click the Import data tab. Once you have clicked the Import data tab, Choose Import Method page will appear. Click, Select import file. After you have clicked the Select import file, a list of data file will appear for you to select. At this page, you can only select one file at a time to import. After you have selected the file to import, click the OK button.



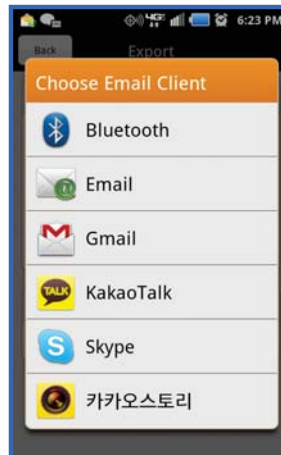
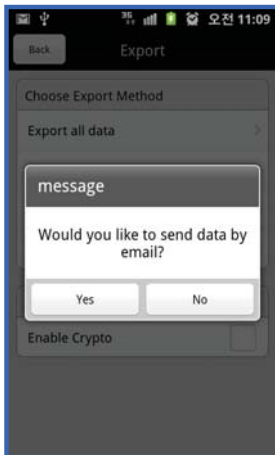
After you have clicked the OK button, a message window will appear to show you what you have imported. Click OK.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

4.2. How to Export

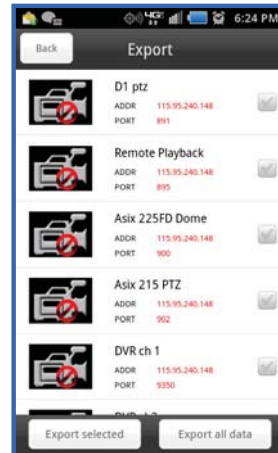
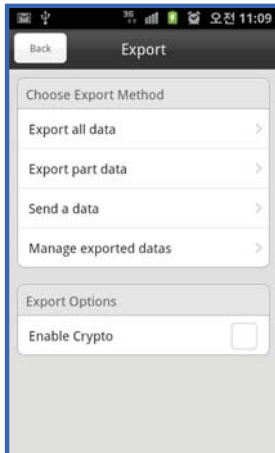


You can export to backup your data. Click the Export data tab. After you have clicked the Export tab, Choose Export Method page will appear. Here you can choose to export data. If you select Export all data, all data will be exported.

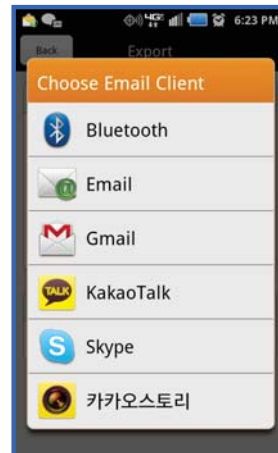
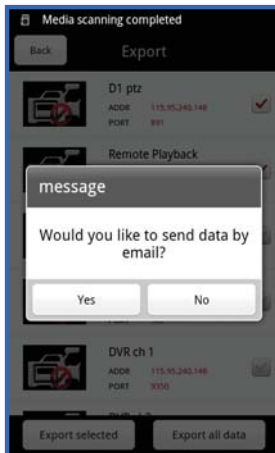


After you have selected to export all data, a message window will appear asking you if you would like to send data by email. Click the Yes button. After you have clicked Yes, a Choose from Email Client window will appear. Select which email client you wish to send it to.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



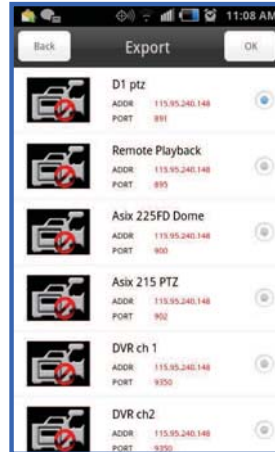
To Export part data, you will need to select which data to export. After you click the Export part data, a data page will appear and from here, you can select which data to export. After you have selected the desired data, click the Export Selected button at the bottom of the page.



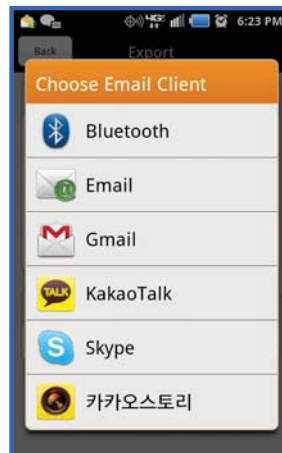
After you have selected to export part data, a message window will appear asking you if you would like to send data by email. Click the Yes button. After you have clicked Yes, a Choose from Email Client window will appear. Select which email client you wish to send it to.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

4.3. How to Send Data



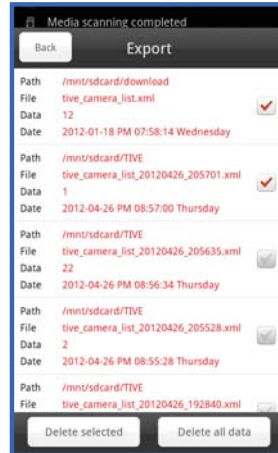
You can select to send data . Click the Send a data tab. After you have clicked the tab, a list of data page will appear. Keep in mind that you can only select one data a time. After you have selected the desired data to send, click the OK button on top right corner.



After you have made you selection, a message window will appear asking you if you would like to encrypt the ID and Password. Click Yes if so and choose from Email Client list.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

4.4. How To Manage Exported Data



You can also manage your exported data. Click the tab and a list of exported data page will appear. You can select how many data that you would like to delete. After you have made your selection, click the Delete Selected button at the bottom left corner of the page.

4.5. How to Encrypt

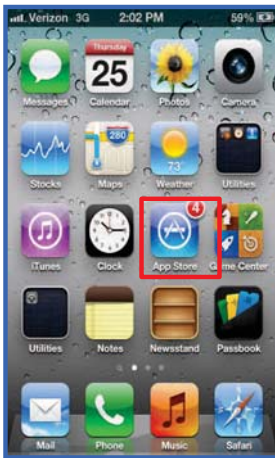


You can encrypt your data when backing up to your email client. This encryption is to provide security in case someone other than yourself sees it. To encrypt, simply click the Enable Crypto box and a check mark will appear. Once the check mark is shown, all your data will be sent encrypted.

Chapter 5. Mobile viewing using your iOS/ iPhone & iPad App

5.1 Getting Started: How to download app

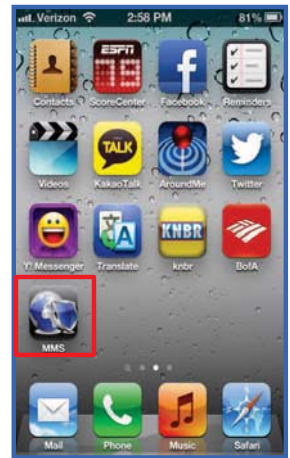
Before using your MMS Apple app., there are very important steps one must follow to gain full access. We will touch upon these steps and go over the procedures to have full access at your fingertips when using your Smartphone or a Tablet.



1. Your first step to using the MMS (Mobile Monitoring Service) app on your Smartphone is to start by going to the Apple app store. Once you have located the app store, click on the icon to begin your very first step in installing the MMS app.



2. Once you have found/located the MMS app, click on the install tab and it will start initialize the installation.



3. After it has finished installing, the MMS icon will appear on your screen, ready for use.

Chapter 6. Device & DVR Setup



4. After you have clicked the MMS app icon, it will route to the Start page. Click the Start button.



5. Once you've clicked the Start button, your first step is to add Device(s) that you would like to view from. On the upper right corner of the screen, click the Add button

6.1. Device



6. After you have clicked the Add button, you will then be routed to the Device page. Here you will need to enter all required information. In this manual, we explain the procedure of the registration of the DVR. However, you can register a specific camera among cameras which are connected to the DVR.

Device: You can add only a single channel of the DVR.

DVR: You can add multi-channel of the DVR.



You can select which model type to choose from

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

The screenshot shows a mobile application interface for configuring a device. At the top, there's a status bar with 'Verizon 3G', '10:38 AM', and '70%' battery. Below it, a header bar has 'Back', 'Device', and 'Save' buttons. The main content area is titled 'Device' and has three tabs: 'Device', 'Group', and 'DVR'. Under the 'Device' tab, there's a 'Device Info' section with the following fields: 'Model Type' (set to 'DVR'), 'Name' (empty), 'IP/URL' (empty), 'Port' (set to '9350'), and 'DDVRLS' (set to 'OFF'). Below this is a 'Device Option' section with 'ID' (set to 'NETWORK') and 'PW' (masked with four dots).

Model Type: Scroll down to select which model type you will be using. For this purpose, we chose DVR.

Name: You may enter any name for your device.

IP/URL: You will need to enter your IP address (or URL) of the DVR in the section. (ex. 192.168.0.200)

Port: Enter the Port number. (ex. 9350)

This screenshot is similar to the one above, but the 'DDVRLS' toggle switch is now turned 'ON' and is highlighted with a red rectangular box. The 'Device Option' section now includes an additional 'Channel' field set to '1' and a 'Show PW' toggle switch set to 'OFF'.

Enable DDVRLS: DDVRLS is server where you can register your DVR. You will need to register your own Network ID and Password first to use this device function. The purpose of using the Enable DDVRLS function is to eliminate having to enter the IP address and Port. Once you enable the DDVRLS, all you need to do is enter ID and PW that you already registered to DDVRLS server at DVR Network menu. This makes it a lot easier connecting instead of memorizing your IP address and Port number.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

7. This portion of the screen is below the screen display #9.

ID: You will have to enter Network ID which you entered to the DVR.

PW: You will have to enter Network ID which you entered to the DVR.

Channel: You may select a channel (camera) of DVR to register as a device. You can add up to 16 different channels. However, you will need to add each channel one at a time. While this may be somewhat cumbersome, this is a necessary step to be able to view all 24 channels. If you only have 4 CH DVR, then you will only have to enter only four separate times, 16CH, sixteen different times and so forth.

If you want to register all channels of your DVR and combine them as a group, we recommend to use DVR tap to register the DVR, not a camera. In this case, you don't need to repeat adding device to register each cameras (channels).

Please enter Network ID and PW of your DVR to these ID / PW fields. Default ID and PW are NETWORK and 1234 same as default Network ID and PW of the DVR.

6.2 Group

In this section, you can group your cameras to your desired configurations. You will have maximum of 24 channels/cameras to configure. Once you have selected how many cameras/channels to group, you will then need to enter a name for that group of cameras. Follow the illustrations below to see how you can group the cameras/channels.

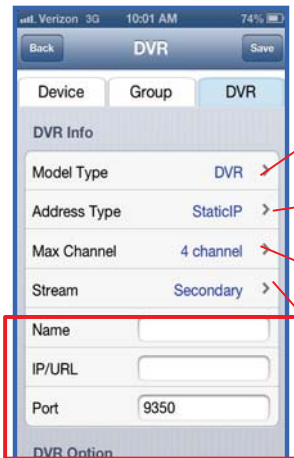
You can name whatever group name you so desire.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



You can select up to 24 CH maximum to group them. Again, depending on how many channels you have set up (24 CH maximum), you can choose and select how you wish to group them.

6.3. DVR



Name: You may enter any name for your device.

IP/URL: You will need to enter your IP address (or URL) of the DVR in the section. (ex. 192.168.0.200)

Port: Enter the Port number. (ex. 9350)



The model type for this tab will be DVR since we entering DVR information



You can choose to select different type of address. 1. StaticIP, 2. DDVRLS, 3. DNS. Static IP: Enter DVR IP address DDVRLS: Enter only ID and Password DNS: Enter domain name



You can select desired channels. You will three channel options to choose from. 4,8, and 16 channels.



You can select from two streams, Secondary and Primary

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



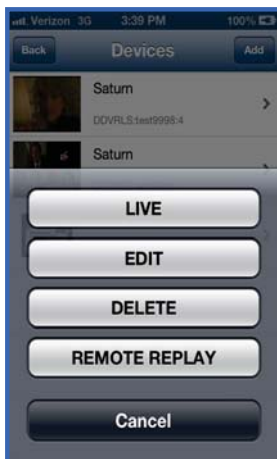
ID: You will have to enter Network ID which you entered to the DVR.
PW: You will have to enter Network ID which you entered to the DVR.

Please enter Network ID and PW of your DVR to these ID / PW fields. Default ID and PW are NETWORK and 1234 same as default Network ID and PW of the DVR.



Switch the Show PW to ON and it will reveal the password.

6.3. Device Quick Menu

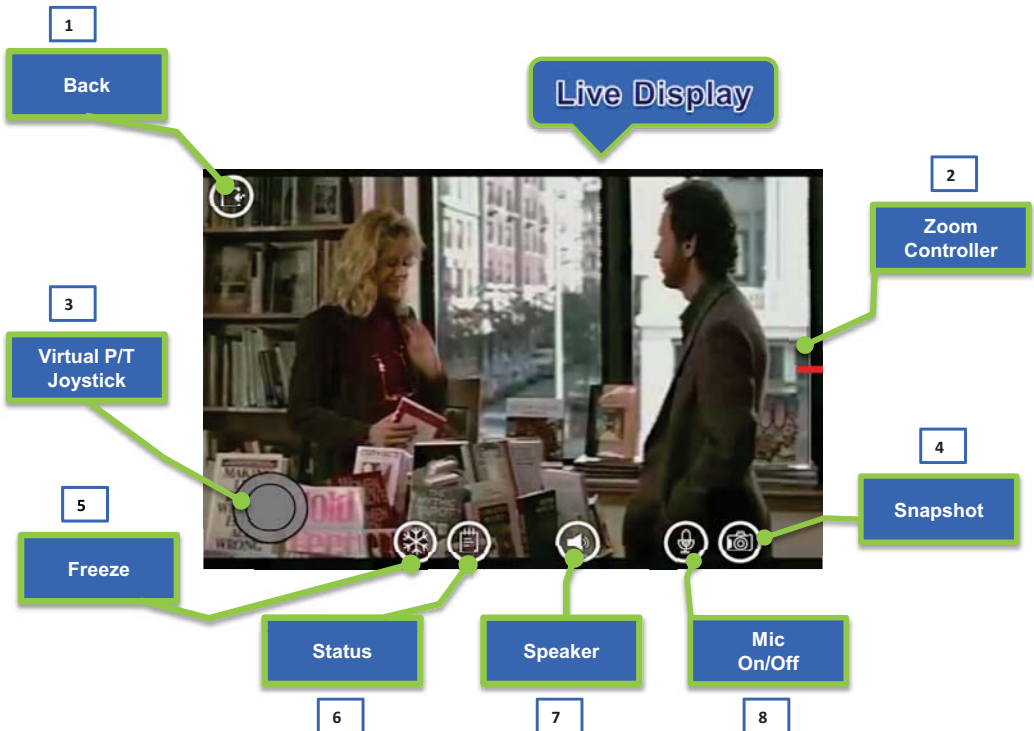


After you have all your devices set up, you can control your devices. Simply touch the image/thumbail on the left side of screen and a "Quick Menu" will appear. This Quick Menu will allow you to control DVR. There are total of 4 functions in this Quick Menu.

1. **Live :**
By simply pressing the Live tab, you'll be able to view live.
2. **Edit:**
You can edit by your Device or DVR information by pressing the Edit tab.
3. **Delete:**
You can delete your Device or DVR from your list by simply pressing the Delete tab.
4. **Remote Replay:**
You can access remotely and replay recordings from your device.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

6.4. Live Display Icon Functions



- 1** Goes back to the previous page.
- 2** Will be able to zoom in/out by using the controller on the right.
- 3** Will be able to control the PTZ camera by using the controller.
- 4** From your mobile device, you will be able to take a snapshot of the image and store it.
- 5** Video will stop playing and freeze the image.
- 6** Will display video playing information such as Device Name, FPS, Resolution, Audio and Record File.
- 7** Will be able to view image in full screen.
- 8** Can set to have the speaker on or off.



ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

6.5. DVR Mode



From your Device page, select the DVR. To view channels, press the thumbnail and the quick menu will appear. Press the Live tab.

Multi-Channel Mode



Single Channel Mode



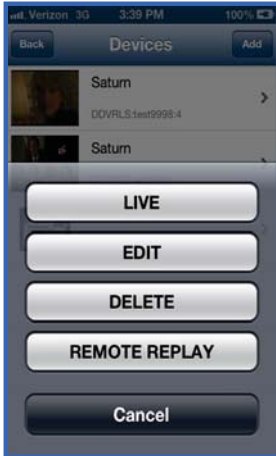
To view your channels as a single full screen, tap on the desired channel once. Once you are at the full screen view, you have access to different functions.



You can choose to view channel in different screen mode. For this purpose, there are 8 channels available so the channel screen mode is 1, 2, 4 and 8.

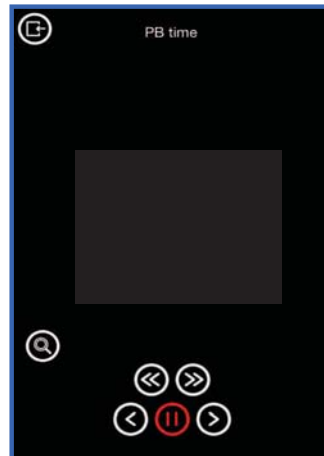
By pressing this function, it will prompt to different channels in multiple. Example: if you are in a single screen, pressing it each time will take you the next channel. If in a two screen mode, each press of the button will take you the next channel in the intervals of two channel. For four channel screen mode, you will switch over to the channels in the intervals of four channels.

6.6. Remote Replay



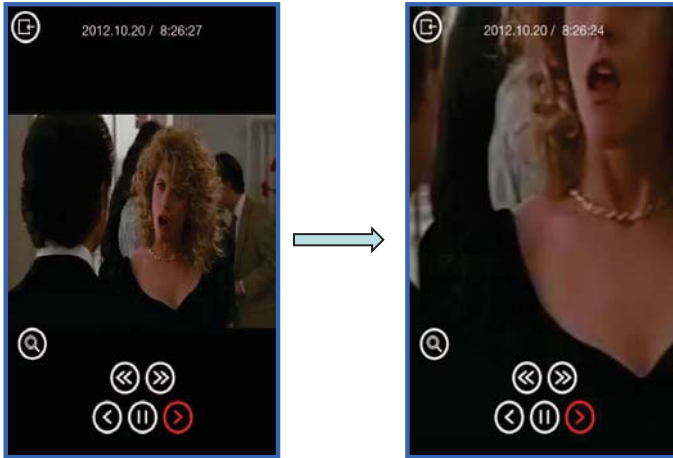
You can access and view your stored data from your network storage. Simply go to your device list and select the data that you would like to view. Click on the image and a Quick Menu bar will appear above the image. Select "Remote Replay".

6.6.1. Playback Control

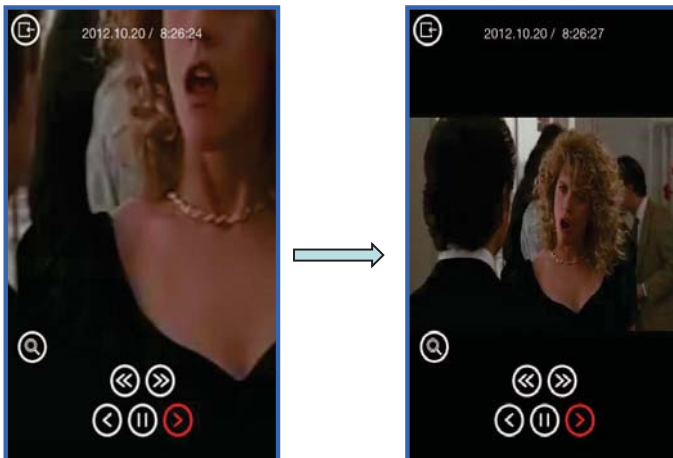


You can use the playback control buttons to navigate to your desired recordings.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



To view image in full screen, tap on the screen twice.

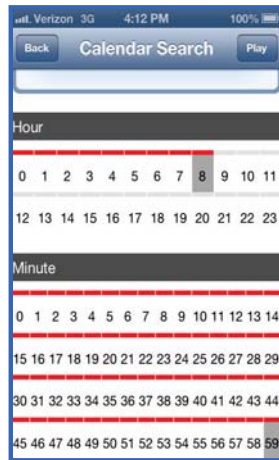



To back to the normal scale, tap on the screen twice again.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



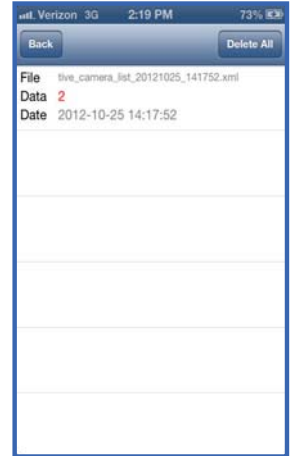
6.6.2. Calendar Search



You can retrieve your stored data from you calendar search. To search by calendar, simply click on the calendar search icon.  doing so, you can search by specific date and time. If the data is stored, date and time will be indicated in red. Select the desired date and time and press the Play button.

Chapter 7. How to Setup Data

7.1. How to Import Data



To import data, click the Import data tab. Once you have clicked the Import data tab, Choose Import Method page will appear. Click, Select import file. After you have clicked the Select import file, a list of data file will appear for you to select. At this page, you can only select one file at a time to import. After you have selected the file to import, click the OK button.



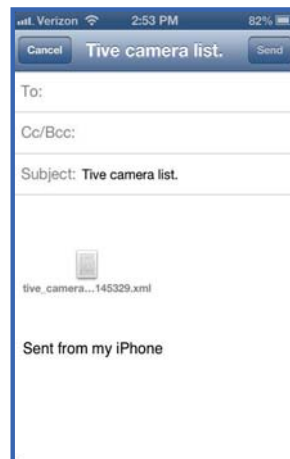
After you have clicked the OK button, a message window will appear to show you what you have imported. Click OK.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

7.2. How to Export Data

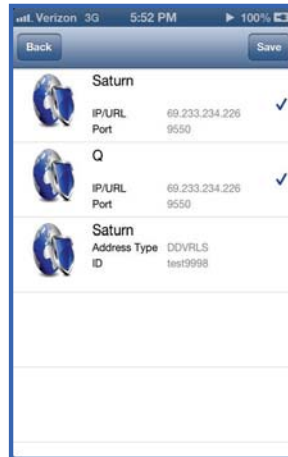


You can export to backup your data. Click the Export data tab. After you have clicked the Export tab, Choose Export Method page will appear. Here you can choose to export data. If you select Export all data, all data will be exported.

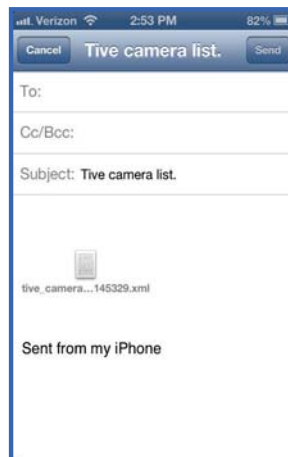


After you have selected to export all data, a message window will appear asking you if you would like to send data by email. Click Yes to send by email.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR



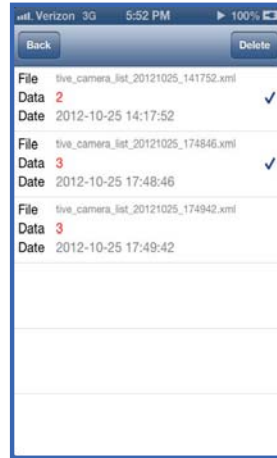
To Export part data, you will need to select which data to export. After you click the Export part data, a data page will appear and from here, you can select which data to export. After you have selected the desired data, click the Export Selected button at the bottom of the page.



After you have selected to export all data, a message window will appear asking you if you would like to send data by email. Click Yes to send by email.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

7.3. How To Manage Exported Data



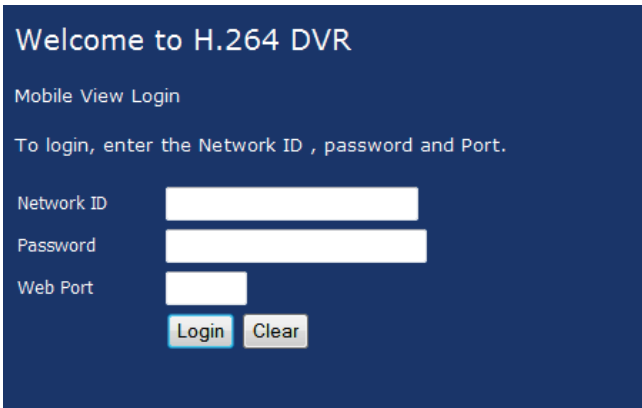
You can also manage your exported data. Click the tab and a list of exported data page will appear. You can select how many data that you would like to delete. After you have made your selection, click the Delete Selected button at the upper right corner of the page.



Chapter 8. Mobile Phone Connection

10.1 Getting Started

1. Type “m.h264viewer.com” in your web browser.



Welcome to H.264 DVR

Mobile View Login

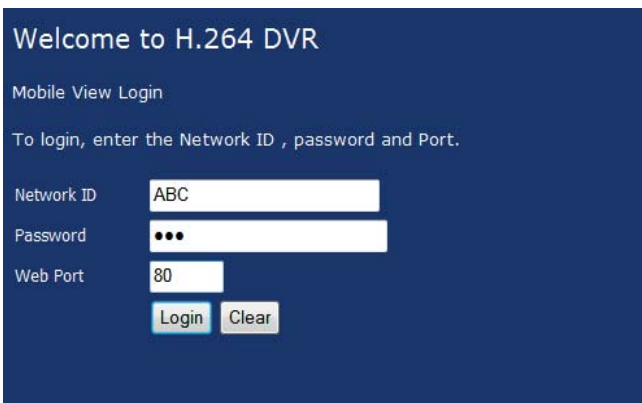
To login, enter the Network ID , password and Port.

Network ID

Password

Web Port

2. Enter Network ID, Password and Web Port of the DVR that you want to view. (note: it is not necessary to enter web port number if you set it up as 80)



Welcome to H.264 DVR

Mobile View Login

To login, enter the Network ID , password and Port.

Network ID

Password

Web Port

3. Click on “Login” button.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

Select a channel to watch.

<u>CH01</u>	<u>CH02</u>	<u>CH03</u>	<u>CH04</u>
<u>CH05</u>	<u>CH06</u>	<u>CH07</u>	<u>CH08</u>

4. Select a channel that you want to watch.



5. If you want to go back to the previous channel selection screen, press back button on the web browser.

Select a channel to watch.

<u>CH01</u>	<u>CH02</u>	<u>CH03</u>	<u>CH04</u>
<u>CH05</u>	<u>CH06</u>	<u>CH07</u>	<u>CH08</u>

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

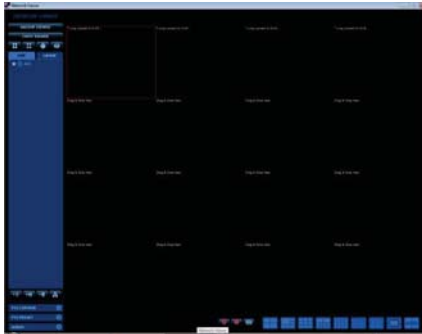
8.10. General Operation


8.10.1. DVR or Group Selection

To connect to DVR(s)/camera(s), select a DVR or GROUP you want to connect by clicking a DVR or GROUP selection window in the top left of Net Viewer.

8.10.2. Connect to DVRs and Cameras

Step 1 : First, select DVRs / camera, then drag and drop to right side of screen.



Step 2: Click Connect button , to get all selected cameras at once.

Or go to selected channel and right-click on the mouse and select **CONNECT**.



Then you will see live video coming from selected camera on the screen.
You can watch multiple videos from other GROUP using a GROUP selection window at any time.

8.10.3. Audio Control



You can control the audio using **AUDIO** button.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

8.10.4. PTZF Control / Preset

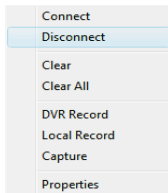
You can control pan/tilt/zoom/focus of PTZ camera connected to your DVR remotely. See the control panel as below. Before start controlling PTZF, please make sure the PTZ camera is connected properly.



8.10.5. Disconnecting the DVR (s) / camera(s) from NetViewer

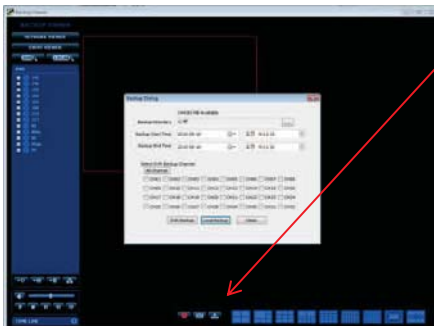
You can disconnect all cameras at once with Disconnect button

Or go to selected channel and right-click on the mouse and click **Disconnect**.



8.10.6. CMS Backup and Playback

Just like file backup directly at your DVR, you can also backup recorded files from your DVR or PC HDD to USB memory stick or some other directories in your local HDD. (**Backup to other remote PC or CD/DVD are not supported.**) The backup file type is H264 format for authentication purpose.



Go to **Backup Viewer** main screen, and click **Backup** button. And **Backup Dialog** window will pop up. Choose “CMS Backup” tab.

Select your backup directory (**Local HDD or USB memory stick**).

Select the **start** and **end** time, and DVR backup channel. Then, click **DVR Backup** or **Local Backup** button depending on where the backup data is coming from. If the backup file size is bigger than available memory size, an error message will appear. Please change the memory size or date and time to change backup file size.

To **playback** your backup files, go to **backup file directory** and click **AIP player**.

Chapter 9. Web Viewer – Connect to DVR via Internet Explorer

9.1. Getting Started

9.1.1 System Requirement

- Pentium 4 or above recommended
- O/S : Microsoft Windows XP, Vista, Windows 7
- 2GB RAM or above recommended
- Super VGA 512M or above (1GB recommended)
- 10/100 Base T network card for LAN operation

9.1.2 Network Environment

	Client PC	DVR
Recommend	More than 3 Mbps	More than 3 Mbps

9.2. Web Viewer Setup

Please visit <http://www.h264viewer.com>

Install required ActiveX for first time visit.

If you experience ActiveX installation problem, please check the security option of your PC if it prevents any Active-X installation.



Web Viewer main screen

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

9.3. Connect to DVR using Web Viewer (IE)

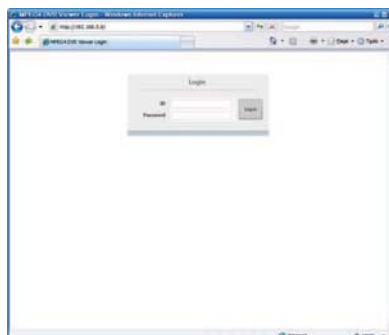
9.3.1. Connect to DVR via Web Browser using URL

- 1) Make sure your DVR network setup is completed. Registering your Network ID and Password is required before connecting to DVR via web browser.
- 2) Open your internet browser. Go to <http://www.h264viewer.com>, then you will see the screen as below.
- 3) After click Connect button, type **Network ID** and **Password** then click **OK** button. DO NOT type IP to use DDVRLS server.



9.3.2 Connect DVR via Web Browser using Direct IP.

- 1) Open your internet browser.
- 2) Type your DVR's IP address in your internet browser (ex: <http://192.168.0.30>). You will be directed to screen as below.

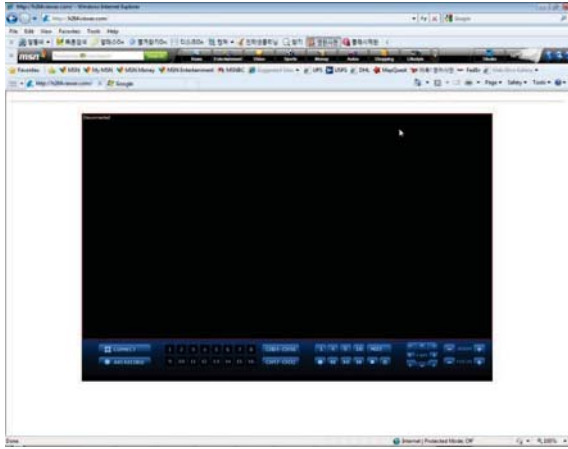


- 3) At the log in page, type your network ID and password and click Login button. Then you will be directed to the Web Viewer main screen.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

9.4. General Operation of WebViewer

When you connect to your DVR, you will see a screen as below.



1. Connect/Disconnect Button

Connect to DVR which is designated in Login pop-up window. To disconnect or connect to other DVRs, please click this button again.

2. AVI Recording Button

Recording current videos into your PC (client PC) in AVI format.

3. Channel Selection Button

You can choose any channel to display in 1CH display mode.

4. Multi Screen Button

You can set display mode in Full (1CH), 4, 9 or 16 channels. To display other channels, click Next button.

5. REC. and Playback Button

You can record and retrieve videos to/from your client PC.

6. Record File Search Button

You can search recorded video files from DVR.

7. PTZF Control :

Pan, Tilt, Zoom, Focus control for PTZ cameras connected to your DVR.

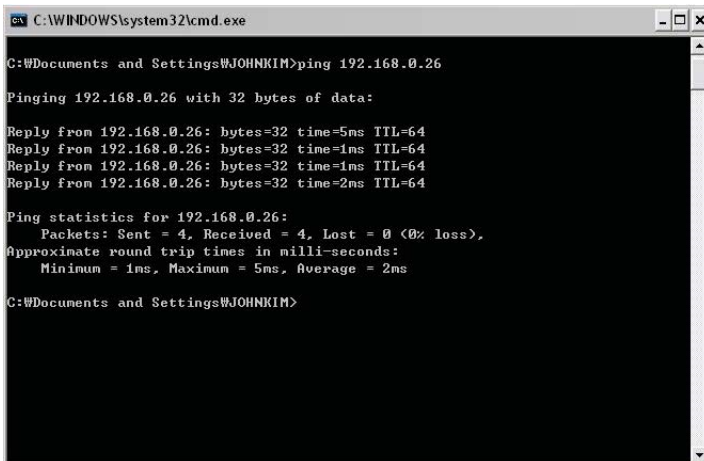
APPENDIX

NETWORK TROUBLESHOOTING

You must set your network environment properly to use remote control software (Net Viewer or Web Viewer).

1. Ping Test through your Router

Ping is a command-line tool used to check whether another computer is reachable from your own. You can use the command either from the Windows Command Prompt or from a Linux terminal. The following shows the sample output under Windows: Type "ping DVR IP address" (e.g. ping 192.168.0.26). If DVR and your computer are in same intranet (LAN) and are connected each other through router, you will see successful ping test.



```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\WJOHNKIM>ping 192.168.0.26

Pinging 192.168.0.26 with 32 bytes of data:

Reply from 192.168.0.26: bytes=32 time=5ms TTL=64
Reply from 192.168.0.26: bytes=32 time=1ms TTL=64
Reply from 192.168.0.26: bytes=32 time=1ms TTL=64
Reply from 192.168.0.26: bytes=32 time=2ms TTL=64

Ping statistics for 192.168.0.26:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 5ms, Average = 2ms

C:\Documents and Settings\WJOHNKIM>
```

If you get time out message at ping test, you should fix this problem before going to next step.

- Check if DVR and computer are in same intranet.
- Check if there are other computers or devices that have same IP address in same intranet.
- Check if IP address, subnet mask and gateway address are correct.

2. Direct ping test without Router

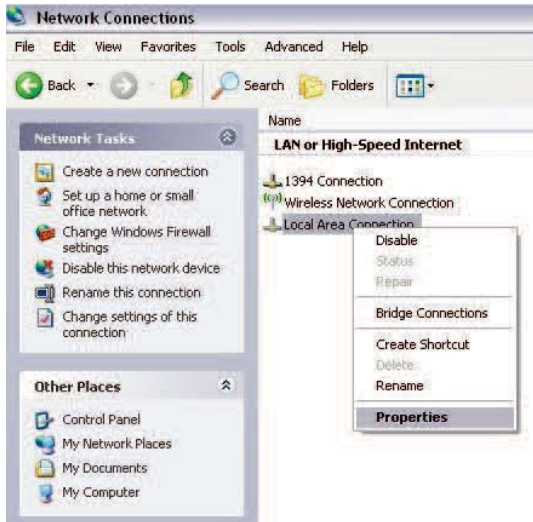
You can do ping test simply with direct connection between PC and DVR. If it fails, please check your intranet (LAN) configuration.

- Connect PC and DVR using **Crossover LAN cable** (usually orange color).

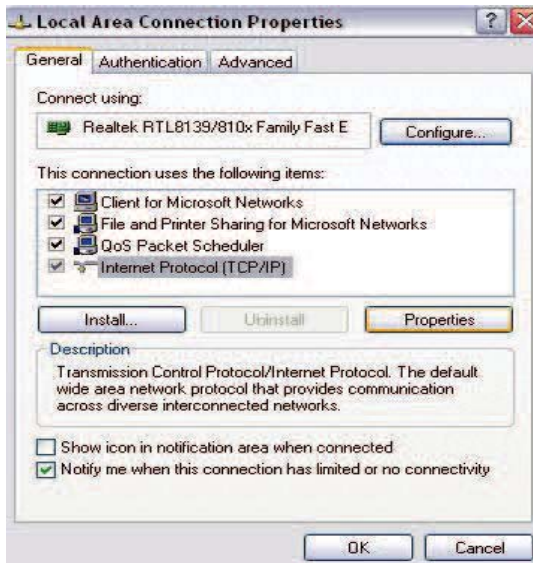


ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

- Set IP address, Subnet mask, and Gateway address of your PC.

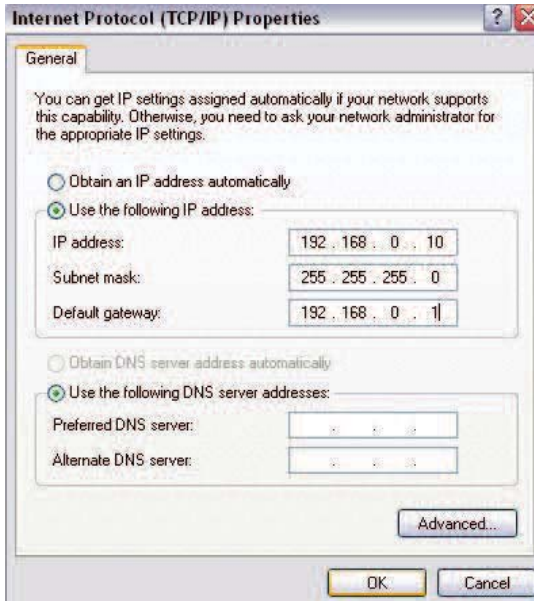


- Open Network Connections
- Select Properties of Local Area Connection



- Select Internet Protocol (TCP/IP)
- Select Properties

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- Click on **Use the following IP address**

- Type in Subnet mask and Gateway address of DVR into these fields.

- Type in IP address like example.

- Do ping test again.

With the test result, you can figure out whether or not the setup has been successful.



TERMS / ICONS GLOSSARY

Composite Video - A format of an analog television (picture only) signal before it is combined with a sound signal.

DHCP - Dynamic Host Configuration Protocol. A network application protocol used by devices to obtain configuration into for operation in an internet protocol network. Also a source of IP addresses.

DSL - Internet connection that can be used at the same time and on the same telephone line with a regular telephone.

Dynamic IP Address - IP address used when a computer's IP address is assigned automatically and can change.

Fps - Frames per second.

H.264 - The latest block-oriented motion-compensation-based codec standard for video compression.

IP - Internet Protocol. A set of rules used for communicating data across a packet-switched internetwork) for communication between its nodes

IP Address - Internet Protocol Address. A numerical identification and logical address that is assigned to devices participating in a computer network utilizing Internet Protocol (IP).

LAN - Local area network. A computer area that is limited to a particular space or area.

NTSC - The analog television system that is used in most of the Americas, Japan, South Korea, Taiwan, Burma, and some Pacific island nations and territories. Also the name of U.S. standardization body that adopted the National Television System Committee broadcast standard.

PAL - Phase Alternating Line. An analogue television encoding system set in broadcast television systems in large parts of the world.

Pentaplex - Multi-channel DVRs that can monitor and record up to 16 separate cameras.

PIP - Picture in Picture.

PPP - Point-to-Point Protocol. A data link protocol commonly used to establish a direct connection between two networking nodes. It can provide connection authentication, transmission encryption privacy, and compression.

PPPoE - Point-to-Point Protocol over Ethernet. A network protocol for encapsulating Point-to-Point Protocol frames inside Ethernet frames.

PTZF - Pan, tilt, zoom, focus.

S-Video - Analog video signal that carries the video data as two separate signals: luminance & chroma. S-Video carries standard definition video but does not carry audio on the same cable.

Spot Monitor - Allows putting of cameras' views in sequence of however order.

Static IP Address - IP address used when a computer is configured to use the same IP address each time it powers up.

VGA - Video Graphics Array. The lowest common denominator that all PC graphics hardware supports. Allows the computer to project onto the monitor

WAN - Wide area network. A computer area that covers a broad area.

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

DVR



REGULAR RECORDING



SCHEDULE RECORDING



EVENT RECORDING



AUTO SEQUENCE



NO DISK



DISK FULL



DISK ERROR



FREEZE



RECORDING



ZOOM-IN



MOTION EVENT



FTP UPLOAD



PROTECT



SWAP



PTZ SET: READY/AVAILABLE



PTZ: ACTIVATED



SENSOR EVENT



LOG ON



AUDIO ON



AUDIO OFF



PROCESSING BACKUP



CIF RESOLUTION



2CIF RESOLUTION



4 CIF RESOLUTION



EVENT MONITORING



FAN ERROR



RELOCK



CAPTURE

ALL IN ONE VIDEO SURVEILLANCE CCTV/DVR

Net Viewer



DVR RECORDING



SPEAKER ON



CONNECT



ADD DVR DEVICE



ADD VIDEO SERVER



LOCAL RECORDING



SPEAKER OFF



DISCONNECT



ADD IP CAMERA



MICROPHONE
ON



HOW TO DOWNLOAD WINDOWS MEDIA PLAYER 10 OR ABOVE OR VLC MEDIA PLAYER, AND PLAY AVI FILES

1. WINDOWS MEDIA PLAYER 10 OR ABOVE

To download **Windows Media Player 10 or above**, please go to the following link:

<http://www.microsoft.com/windows/windowsmedia/player/10/default.aspx>

NOTE: after installation, if audio and/or video are not working normal, install codec "ffdshow.exe" file from the backed up file:

1. Double-click or open the file you backed up
2. Open "codec" folder
3. Implement "ffdshow.exe" file.

If recorded time and date are not showing on the screen, please follow the instruction below:

1. Click down arrow key (for access application menu) on the top title. Go to Play -> Captions and Subtitles -> "ON" if available.
2. Click down arrow key (for access application menu) on the top title. Go to Tools -> Options -> Security -> Show local captions when present (or Run scrip commands when present).

2. VLC PLAYER

To download and install **VLC Media Player**, please go to the following link:

<http://www.downloadvclplayer.org/>

To play with VLC media player, open the back up file -> open "file" folder -> choose a file you want to view and right click -> select "Open with" menu -> choose "VLC media player."